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Vol. VI.

of the

Botanists Repository

Comprising,

Colour'd Engravings

of

New and Rare Plants

ONLY

With Botanical Descriptions &c.

in

Latin and English,

after the

Linnæan System

by

H. Andrews

Botanical Painter Engraver &c.

Mo. Bot. Garden
1904.

PLATE CCCLXI.

SANSEVIERA CARNEA.

Flesh-coloured Sanseviera.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla infera monopetala, tubo filiformi, limbo, 6-partito, revoluto. Stamina limbo inserta. Bacca 1-sperma.	Corolla beneath of one petal, with a thread-shaped tube, and 6-parted revolute limb. Threads inserted into the limb. Berry one seeded.

SPECIFIC CHARACTER, &c.

Sanseviera. Foliis distichis, lanceolato-ensiformibus, carinatis, floribus solitariis sessilibus.	Sanseviera. With leaves two-ranked, lance-sword shaped, keeled, flowers solitary, sessile.

Descriptio. Herba perennis, habitu Hemerocallidis. *Radix* subcarnosus, fibris longissimis subsimplicibus. *Folia* radicalia, subdisticha, effusa, lanceolato-ensiformia, fere pedalia, trinervia, (nervo medio carinæformi) basin imbricata et profunde caniliculata, marginibus apices versus asperiusculis. *Scapus* radicalis, et quasi lateralis, palmaris, suberectus, angulatus, superne carneus. *Flores* spicati, ascendentes, sessiles, alterni, carnei, intus pallidiores. *Bracteæ* ovato-acuminatæ, concavæ, carneæ, flores amplectentes. *Corolla* 6-partita, tubo angulato longitudine bractearum; laciniis revolutis sublanceolatis, tubo aliquo longioribus, supremâ paulo majore. *Filamenta* 6 æqualia, alba, basi laciniarum inserta, laciniis aliquo brevioribus. *Antheræ* erectæ, utrinque emarginatæ, sulphureæ. *Stylus* carneus, paulo declinatus, antheris vix superans. *Stigma* obtusum album, obsoletissime trilobatum.

REFERENCE TO THE PLATE.

1. A floral leaf.
2. The flower cut open, with one of the tips magnified.
3. The Pointal and Seed-bud, and the summit magnified.

This new species, of Thunberg's new genus Sanseviera, which is a branch of the Linnæan genus Aletris; was introduced into this country from China, by T. Evans, Esq. of Stepney; in the year 1792: but is still very rare. Our drawing was made from a fine plant in the collection of J. Vere, Esq. of Kensington Gore, in the month of March *. Mr. Anderson, his botanic gardener, informs us, he has treated it as a hothouse plant; but it will probably be found to succeed better in the greenhouse, like other Chinese plants. It is propagated by parting the roots. In habit it resembles Hemerocallis more than Sanseviera, but agrees with the generical characters of Sanseviera zeylanica. With Aletris fragrans it also agrees in many particulars; but with Aletris farinosa is quite at variance.

* A root of it, (lately parted from the individual here figured,) flowered at Messrs. Grimwood and Wykes's, in February.

Missouri Botanical
Garden Library

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PLATE CCCLXII.

CROCUS BIFLORUS.

Yellow-bottomed White Crocus.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA, supera, 6-partita, ſubæqualis, erecto-patula, tubo longiſſimo ſubterraneo.	COROLLA, above, 6-parted, nearly equal, erect-expanding, with a very long ſubterraneous tube.

SPECIFIC CHARACTER, &c.

Crocus, foliis anguſtiſſimis effuſis floribus ſemper longe ſuperantibus.	Crocus, with very narrow diffuſed leaves, which are always much higher than the flowers.

DESCRIPTIO. *Radix* tunicis glabris cochleariformibus. *Folia,* tempore florendi, longiſſima omnium, magiſque effuſa. *Spathæ* ſæpe 2-floræ, ut in plurimis. *Flores* vernales, albæ, magnæ; fundo intus ſordide flavo, extus aliquo olivaceo; tubo pergracili, depilato; petalis 3 exterioribus, extus tincturâ flavedinis, et purpureo elegantiſſime plumoſo-ſtriatis. *Filamenta antheræque* erectæ, luteæ. *Stylus* percroceus. *Stigmata* itidem percrocea, antheris vix ſuperantia. *Haworth's Crocus inedit.*

REFERENCE TO THE PLATE.

1. The outer ſheath of the flower.
2. The inner.
3. The flower cut open.

THIS beautiful Crocus is unqueſtionably diſtinct as a ſpecies, and has never been noticed by any ſyſtematic writer except Miller; who has deſcribed it accurately under the name of *biflorus,* in the 8th edition of his celebrated Dictionary. It is very hardy, flowers early in February, and may be readily diſtinguiſhed from other Crocuſes by its leaves being much longer than the flowers, at the time of flowering. When the ſun ſhines ſtrong, the flowers have a juſt perceptible fragrant ſcent; a circumſtance very unuſual in this genus; all the other ſpecies, (one we call *fragrans* excepted) having more or leſs of an unpleaſant ſmell. It ſeldom produces ſeeds in this country, or varies in colour; but increaſes by the root.

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Crocus biflorus

Pub. as the Act Directs April 1st 1806

PLATE CCCLXIII.

POLYGALA STIPULACEA.

Stipuled Milkwort.

CLASS XVII. ORDER III.

DIADELPHIA OCTANDRIA. Two Brotherhoods. Eight Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-phyllus: foliolis duobus alæformibus, coloratis. Legumen obcordatum, biloculare.

CUP 5-leaved, with two of the leaves like wings, coloured. Pod inverſe heart-ſhaped, two-celled.

SPECIFIC CHARACTER, &c.

Polygala. Floribus imberbibus lateralibus, caule ſuffruticoſo, foliis ternis linearibus acutis. *Willd. Sp. pl.* 892.

Polygala. With beardleſs lateral flowers, a ſhrubby ſtem, and ternate, linear, acute leaves.

DESCRIPTIO. *Suffrutex,* ramulis ſubdivaricatis, filiformibus, elongatis, pubeſcentibus. *Folia* faſciculata, linearia, obſolete mucronata, 3-6 in ſingulo faſciculo; infimo latiore, breviore, ſtipuliforme. *Flores* P. Heiſteriæ, at minores, axillares, ſolitarii, vel ſubinde binati; ſeſſiles.

REFERENCE TO THE PLATE.

1. The Empalement.
2. The ſame magnified.
3. The Keel magnified.
4. One of the wings.
5. The ſame magnified.
6. The Chives.
7. The ſame magnified.
8. The Pointal magnified.

A RARE Cape ſpecies recently introduced to the Hibbertian Collection, where our drawing was taken laſt ſummer. It is a greenhouse ſhrub of the more delicate kind; and is propagated, but not very readily, by cuttings.

In the ſtructure of the flowers this ſpecies agrees exactly with the common Polygala Heiſteria, which Linnæus originally made a diſtinct genus from Polygala; but afterwards united them. In keeping them diſtinct we think he did right; but wrong in uniting them. Our readers will have an opportunity of judging for themſelves in our next number, in which will be figured a true Polygala, and another of the Heisteria family; with proper diſſections of each.

Heisteria was named by Linnæus in honour of the celebrated German ſurgeon Heiſter.

Polygala stipulacea

PLATE CCCLXIV.

IRIS PAVONIA.

The Peacock-Iris.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita: laciniis alternis reflexis. Stigmata petaliformia.	COROLLA 6-parted: with the alternate ſegments reflexed. The ſtigmas petal-ſhaped.

SPECIFIC CHARACTER, &c.

Iris. Imberbis, folio lineari glabro, ſcapo ſub-unifloro.	Iris. Beardleſs, with a linear ſmooth leaf, and a uſually one-flowered ſtem.

IRIS *Pavonia* Willd. Sp. Pl. I. 238.

Jacq. Coll. Sup. p. 8, *Deſcriptione optimâ.*

REFERENCE TO THE PLATE.

1. The outer Sheath of the Flower.
2. The inner one.
3. The Seed-bud, Chives and Pointal as they ſtand in the Flower.
4. The Chives ſpread open.
5. The Pointal.

THIS ſplendid but fugitive plant, is ſtrikingly emblematic of the ſhort duration of ſuperior beauty: its flower is but the tranſient object of a day; and its whole life in Europe ſeldom exceeds a ſingle year!

The Peacock-Iris, notwithſtanding its attractions, is but imperfectly underſtood by the Botaniſts and Horticulturiſts of this country; for while the latter have been unſucceſsful in cultivating it: ſome of the former have privately conſidered it as a new Genus: ſome have referred it to Iris, Morea, or Ferraria; others with more propriety to De la Roche's Genus Vieuſſeuxia; and the uſually accurate Curtis miſtook and figured the widely-different Iris tricuſpis for it.

The Engliſh Gardens have ſeveral times poſſeſſed this charming ſpecies, but we are afraid it is at preſent entirely loſt to them. Our figure therefore, taken from the Hibbertian collection ſome time ſince, cannot fail to be highly acceptable to all lovers of plants.

In root Iris Pavonia reſembles other Cape Irides; but the varying luſtres of its brilliant flowers are ſeldom equalled; and not much excelled by any plant we ever ſaw. It is a native of the Cape, flowers early in Spring; and muſt be treated like the other bulbous ſpecies from that country.

Iris pavonia

PLATE CCCLXV.

SCILLA SIBERICA.

Siberian Squill.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-petala, patens, decidua. Filamenta filiformia.	COROLLA 6 petaled, expanding, deciduous. Filaments thread-ſhaped.

SPECIFIC CHARACTER, &c.

Scilla, tetraphylla, ſcapis plurimis ſemiteretibus, ſtriatis, biſloris, poſt floreſcentiam decumbentibus.	Scilla, four-leaved, with many ſemicylindrical, ſcored, two-flowered ſtalks, which after flowering are decumbent.

DESCRIPTIO. *Radix* bulboſus, magnus pro ratione magnitudinis plantæ. *Folia* in bulbis ſenectis, ſæpius 4, latiuſcula, aliquo ſtriatula, parum recurvata, apice obcuneata et ſubinvoluta. *Scapi* 3-5 : 1-2, vel rariſſime 3-flori, inæquales, ſemicylindrici, valde ſtriati, lucidi, vix palmares, ſuperne atro-cæruleſcentes. *Pedunculi* alterni, remoti, difformes, 1-6 lineares, baſi bibracteati, erecti, apice nutantes, vel cernui, uniflori, atro-cæruleſcentes. *Bracteæ* difformes, parvulæ, inferne purpuraſcentes, ſuperne albæ et membranaceæ. *Corolla* hexapetala, nutans, vel cernua, campanulata. *Petala* ſublanceolata, obtuſa, concavo-incurva, lætiſſime cærulea; intus pallidiora, baſi albicantia, coſtâ utrinque ſaturatiore. *Filamenta* 6, filiformia, compreſſa, alba, ſuperne profunde cærulea, petalis duplo breviora. *Antheræ* majuſculæ æruginoſa. *Germen* pallidum, ſubrotundum, 6-ſulcatum, ſulcis alternis profundioribus. *Stylus* antheris ſuperans, decumbens, baſi albus, ſuperne azureus. *Stigma* obſoletiſſimum.

REFERENCE TO THE PLATE.

1. The Flower ſpread open, with one Chive magnified.
2. The Pointal and Seed-bud, the Summit magnified.

THIS nondeſcript and beautiful ſpecies of the genus Scilla, is allied to Scilla præcox of Willdenow; but appears to differ in too many particulars, to admit of their being united. It is a native of Siberia, increaſes ſlowly by the root, but ſometimes ripens ſeeds in this country. It commences flowering in the beginning of February, before the common Scilla bifolia; but continues in beauty long after that plant is paſt; and although perfectly hardy, its flowers are liable to be injured by ſtrong froſts, unleſs occaſionally protected.

It thrives well in a light ſoil, and warm ſituation; but, like all dwarf plants, appears to moſt advantage in a pot: and indeed, ſucceeds beſt with the treatment uſually given to alpine plants.

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Scilla siberica

PLATE CCCLXVI.

GERANIUM BARBATUM. *Var. Undulatum.*

Bearded-leaved Geranium. *Var. Waved-petalled.*

CLASS XVI. ORDER IV.

MONADELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Monogyna. Stigmata quinque. Fructus roſtratus, pentacoccus.	**One Pointal.** Five ſummits. Fruit furniſhed with long awns, five dry berries.

SPECIFIC CHARACTER, &c.

Geranium. Foliis pinnatis, inciſuris pinnarum ariſtatis barbatiſque, petalis omnibus flavicantibus, rubro-notatis undulatiſque.	Geranium. With winged leaves, the ſegments ariſtated and bearded, all the petals yellowiſh, marked with red, and undulated.

Descriptio. Pinnæ foliorum inæqualiter inciſæ, inciſſuris acuminatis, barbatisque. *Scapus* ramoſus. *Flores* umbellati. *Petala* omnia linearia, obtuſa, elongata, recurvata, valde undulata, flavicantia, baſi fere ad medium lætiſſime rubra. Stamina fertilia quinque.

REFERENCE TO THE PLATE.

1. The Empalement.
2. The Chives and Pointal.
3. The ſame magnified.
4. The Pointal magnified.

This plant was ſent from the Cape to the collection of George Hibbert, Eſq. at Clapham, where our drawing was taken in September; it is no more than a variety, although a very beautiful one, of the Geranium barbatum of this work, of which one variety has already been figured on plate 323. It is a green-houſe plant, and requires the ſame treatment as the other tuberous rooted ſpecies.

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PLATE CCCLXVII.

ANAGALLIS GRANDIFLORA.

Great-flowered Pimpernel.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CAPSULA 1-locularis, circumscissa. *Corolla* rotata. *Stamina* hirsuta. *Stigma* capitatum.	CAPSULE one-celled, cut round. *Corolla* wheel-shaped. *Chives* hairy. *Summit* headed.

SPECIFIC CHARACTER, &c.

ANAGALLIS, foliis ternatis cordato-ovatis acuminatis.	ANAGALLIS, with leaves in threes heart-egg-shaped acuminated.

DESCRIPTIO. *Radix* annua. *Rami* elongati, effusi, procumbentes, angulati, superne simplices. *Folia* ternatim verticillata, remota, elliptica, acuminata, amplexicaulia, utrinque 3—5-lineata. *Pedunculi* ternatim verticillati, axillares, filiformes, primo patuli, demum sæpe recurvi, foliis duplo longiores. *Calyx* 4- rarius 5- phyllus, foliolis lanceolatis, acuminatis, carinatis, marginibus membranaceis. *Corolla* 5- rarius 4- petala, petalis basi confluentibus, patulis, orbiculatis, coccineis, basi intus nigris. *Filamenta* 5 hirsuta, atro-purpurascentia, petalis multo breviora. *Germen* pallidum. *Stylus* pergracilis purpureus antheras luteas superans. *Stigma* simplex, capitulatum, viride.

REFERENCE TO THE PLATE.

1. A peduncle and calyx.
2. The corolla spread open.
3. The seed-bud and pointal, and summit magnified.

THIS new and elegant species of Anagallis, the largest and most showy of that genus hitherto discovered, was introduced into England, we believe, in the last year; but by whom, or from what country, we have not yet satisfactorily ascertained. It is reported to be of African origin, and to have come to England from the Paris garden. Our figure was made from a plant trained up near three feet high, in Lady De Clifford's collection at Paddington, where it is treated as a green-house plant. We have not yet seen it produce good seeds, although apparently an annual plant; but it is easily increased by cuttings in the usual way. In every thing except size, and in having more entire petals, it very much resembles Anagallis arvensis; a plant truly remarkable for being the only one indigenous to Britain (the Poppies excepted) with scarlet flowers.

Anagallis grandiflora

PLATE CCCLXVIII.

MELANTHIUM MASSONIÆFOLIUM.

Massonia-leaved Melanthium.

CLASS VI. ORDER I.

HEXANDRIA TRIGYNIA. Six Chives. Three Pointals.

ESSENTIAL GENERIC CHARACTER.

Calyx 0. *Corolla* infera, 6-petala, petalis staminiferis.	No Calyx. *Corolla* beneath, 6-petalled, with the petals staminiferous.

SPECIFIC CHARACTER, &c.

Melanthium, foliis subrotundis prostratis sulcato-striatis, floribus spicatis.	Melanthium, with roundish prostrate sulcato-striated leaves, and spiked flowers.

Descriptio. *Folia* duo humi appressa, subrotunda, viridia, acumine obsoleto recurvato, striisque sulcatis parallelis circiter 12; subtus glabra pallidiora. *Flores* in spica perbracteata ut in Eucomide. *Scapus* clavatus teres. *Bracteæ* ovato-acuminatæ, magnæ; superiores paulo minores. *Flores* sessiles, bracteis multoties breviores, virides. *Corolla* hexapetaloidea, vix aperta, petalis sublanceolatis, obtusis, erectis, apicem versus incurvis. *Filamenta* brevissima, compressa, collo corollæ imposita, basi confluentia. *Antheræ* erectæ obsoletæ. *Germen* alato-triangulare, desinens in stylos 3 obsoletissimos, subulatos, et fere adnatos.

REFERENCE TO THE PLATE.

1. A floral leaf.
2. The corolla cut open.
3. A back view of the same.
4. The seed-bud and obsolete styles.

This singular plant appears to us to be a new, but somewhat anomalous species of the Genus Melanthium; which, as it at present stands, unquestionably contains several Genera. It is a native of the Cape, and a Green-house plant; and prior to flowering possesses altogether the appearance of a Massonia, and thrives very well with the treatment of one. Our drawing of it was taken from fine plants in the Hibbertian collection in the month of March.

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Melanthium maltoniaefolium

PLATE CCCLXIX.

EUCOMIS PURPUREOCAULIS.

Purple-stalked Eucomis.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA infera, 6-partita, persistens. Filamenta nectario adnata.	COROLLA beneath, 6-parted, persistent. Chives conjoined to the base of the corolla, forming a nectary.

SPECIFIC CHARACTER.

EUCOMIS, scapo clavato, foliis multifariis expansis orbiculato-spatulatis.	EUCOMIS, with a clavated scape, leaves pointing many ways expanded orbicular-spatula-shaped.

DESCRIPTIO. *Radix* ut in affinibus. *Folia* 5—7, multifaria, expansa, demum prostrata, orbiculato-spatulata, vel subinde multo angustiora, viridia, obsolete sulcato-lineata et lucida, marginibus minute cartilagineis, glabriusculis; subtus pallidiora, lucidiora, magisque sulcata. *Scapus* claviformis, perbrevis, crassus, atro-purpureus; intra flores valde contractus, viridis, purpureoque punctatus. *Flores* spicati, conferti, sessiles, sæpe adscendentes, unibracteati. *Bracteæ* imæ obcuneatæ, subrecurvæ, submembranaceæ, et sæpe purpurascentes; sensim minores; summæ longiores, lineari-lanceolatæ, purpureo-marginatæ, steriles; in coronam foliolorum perelegantem supra flores collectæ. *Corolla* hexapetaloidea, petalis subæqualibus, lineari-oblongis, vix attenuatis, viridibus. *Filamenta* 6, basi petalorum valde connata, subulata, compressa; superne incurvata. *Antheræ* flavescentes; post florescentiam fuscæ, pendulæ, ad apices petalorum vix attingentes. *Germen* sulcato-triangulare. *Stylus* flexuoso-adscendens, teres, vix subulatus, filamentis multo brevior. *Stigma* nullum sive inconspicuum.

REFERENCE TO THE PLATE.

1. One of the lower floral leaves.
2. The corolla cut open.
3. The seed-bud and pointal.

WE find no account of this fine plant in any publication we have consulted: it is closely allied to Eucomis regia, but differs sufficiently from that species in the shape of its leaves, and the smoothness of their margins. It is a green-house plant, and was lately introduced from the Cape by G. Hibbert, Esq. from a plant in whose collection our drawing was taken in the month of March.

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Euconis purpureocaulis.

PLATE CCCLXX.

POLYGALA TERETIFOLIA.

Cylindric-leaved Milkwort.

CLASS XVII. ORDER III.

DIADELPHIA OCTANDRIA. Two Brotherhoods. Eight Chives.

ESSENTIAL GENERIC CHARACTER.

Calyx 5-phyllus; foliolis duobus alæformibus, coloratis. Legumen obcordatum, biloculare.	Cup 5-leaved; with two of the leaves like wings, coloured. Pod inverse heart-shaped, two-celled.

SPECIFIC CHARACTER.

Polygala, floribus cristatis, racemis terminalibus paucifloris, alis calycinis ovatis acutiusculis multinerviis, caule fruticoso, foliis lineari-subulatis. *Willd. Sp. Pl.* 882.	Polygala, with cristated flowers, racemes terminal few-flowered, calyx-wings ovate acutish many-nerved, shrubby stem, and linear-awl-shaped leaves.

Descriptio. Ramuli filiformes, patuli, canescentes. *Folia* sparsa, sæpe conferta, recurva, et falcata, linearia, obtusa, marginibus revolutis, ut in Erica; supra canescentia: subtus cana. *Racemi* 2—5-flori. *Pedunculi* pubescentes.

REFERENCE TO THE PLATE.

1. A leaf.
2. The under surface of the same magnified.
3. The exterior part of the cup.
4. One of the wing-like leaves of the cup, outside.
5. The same inside.
6. The chives, keel and banner spread open.
7. The keel and its crest detached.
8. The same magnified.
9. The chives and banner.
10. The same magnified.
11. The seed-bud and pointal.
12. The same magnified.

Our plate represents the true species of Polygala, which we promised in our account of P. stipulacea. It is a green-house shrub, and rather delicate; yet may, with care, be propagated by cuttings; but is at present very scarce in this country. Its native country is the Cape. Our drawing was taken from a plant in the Clapham collection in the summer of 1803.

Polygala teretifolia.

PLATE CCCLXXI.

POLYGALA ALOPECUROIDES.

Fox-tail Milkwort.

CLASS XVII. ORDER III.

DIADELPHIA OCTANDRIA. Two Brotherhoods. Eight Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-phyllus, foliolis duobus alæformibus, coloratis. Legumen obcordatum, biloculare.

CUP 5-leaved, with two of the leaves like wings, coloured. Pod inverse heart-shaped, two-celled.

SPECIFIC CHARACTER, &c.

POLYGALA, floribus imberbibus, pedunculis solitariis axillaribus, foliis fasciculatis ovatis mucronatis margine ciliatis. *Willd. Sp. Pl.* 890.

P. floribus imberbibus lateralibus, foliis fasciculatis lanceolatis mucronatis villosis. *Thunb. Prod.* 121.

POLYGALA, with flowers beardless, peduncles solitary axillary, leaves fascicled egg-shaped mucronated and ciliated on the margin.

P. with flowers beardless lateral, leaves fasciculated lance-shaped mucronated and villose.

DESCRIPTIO. *Suffrutex* elegans, ramulis hirtis. *Folia* valde conferta, fasciculata, pone medium recurva, 5—6 in singulo fasciculo, infimo majore, latiore, stipuliforme; omnia lineari-lanceolata, mucronata, hirta, ad margines valde ciliata. *Flores* axillares, sessiles, solitarii, minuti, purpurascentes, serrulati.

REFERENCE TO THE PLATE.

1. The empalement magnified.
2. The keel magnified.
3. One of the wings magnified.
4. The chives and pointal magnified.
5. The pointal detached and magnified.

THIS is the Polygala of the Heisteria family, which we last month engaged to lay before our readers. They will now have an opportunity, from our copious dissections of the flowers, of judging of the great and numerous generical differences which exist between a genuine Polygala and the discarded genus Heisteria. All the Heisteriæ we have yet had an opportunity of examining are heptandrous; all the true Polygalæ octandrous: but these are the least of their distinctions.

The Fox-tail Milkwort is a very elegant shrub of the green-house kind, and is often in flower. It was recently raised from Cape seeds in the Clapham collection, and is at present, we believe, in no other: thrives well in a mixture of bog earth and loam, and is capable of propagation by cuttings.

Polygala alopecuroides

PLATE CCCLXXII.

MIMOSA PURPUREA.

Soldier Bush Mimosa.

CLASS XXIII. ORDER I.

POLYGAMIA MONOECIA. Various Dispositions. Upon one Plant.

ESSENTIAL GENERIC CHARACTER.

HERMAPH. Calyx 5-dentatus. Cor. 5-fida. Stam. 5 seu plura. Pist. 1. Legumen.
Mascul. Calyx 5-dentatus. Cor. 5-fida. Stam. 5—10, plura.

HERMAPH. Cup 5-toothed. Blos. 5-cleft. Chives 5 or more. Pointal one. A Pod.
Male. Cup 5-toothed. Blos. 5-cleft. Chives, 5, 10, or more.

SPECIFIC CHARACTER, &c.

MIMOSA, inermis, foliis conjugatis pinnatis, foliolis intimis minoribus. *Linn. Sp. Pl. ed. 3. p.* 1500.
M. foliis tergeminis. *Plum. Ic. t.* 10. *f.* 2.

MIMOSA, unarmed, with leaves conjugate prinnate, and the inner leaflets smaller.
M. with leaves three times twinned.

REFERENCE TO THE PLATE.

1. A single flower.
2. The cup.
3. The blossom.
4. The seed-bud and pointal.

THE Mimosa purpurea is a native of the West Indies, and is there known by the expressive appellation of Soldier Bush; from the plants being sometimes almost covered with their bright red-purple flowers, in which state it is said they are visible, and even cognizable, on the sides of hills, at the distance of a mile.

The Soldier Bush in this country must be treated as a tender hot-house shrub, and kept constantly in the tan-bed, planted in rich earth. It is a plant of handsome growth and foliage; but its charming flowers are so very rare, that we do not recollect seeing any of them except those which are here represented, from a plant which flowered in March last, in the collection of Mrs. Wright at Bayswater. It is propagated by cuttings in the usual way.

Mimosa purpurea

PLATE CCCLXXIII.

PÆONIA SUFFRUTICOSA.

Shrubby Pæony.

CLASS XIII. ORDER V.

POLYANDRIA PENTAGYNIA. Many Chives. Five Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX 5-phyllus. Petala 5. Styli 0. Capsulæ polyspermæ. ‖ CUP 5-leaved. Petals 5. Pointal none. Capsules many-seeded.

SPECIFIC CHARACTER, &c.

PÆONIA, foliolis subtus glaucis et villosis, capsulis sericeis, caule suffruticoso. ‖ PÆONY, with leaflets glaucous and villose beneath, capsules silky, and shrubby stem.

PÆONIA officinalis. *Thunb. Fl. Jap.* 230.—*Loureir. Fl. Cochin.* 1. 343.

DESCRIPTIO. Suffrutex 3-pedalis et ultra, ramosus. *Rami* erectiusculi, cortice subfusco; ramulis erectis lævibus, apicem versus viridibus, pauloque pubescentibus. *Folia* alterna, bipinnata, pedalia et ultra, horizontalia; superiora adscendentia; petiolis amplexicaulibus, canaliculatis, villis perpaucis sæpe instructis, canaliculâ petiolorum semper lætissime roseâ: pinnæ 2—4, petiolatæ; pinnulæ sæpe 3, sessiles, infimæ oppositæ, tertia terminalis; omnes basi oblique cuneatæ, superne irregulariter inciso-dentatæ; supra virides, venosæ, nudæ, subtus glaucæ, nervosæ, villosæ. *Flores* speciosissimi ut in affinibus, sed in nostris exemplaribus pleni, rosei. *Capsulæ* sericeo-pubescentes.

THE Pæonia suffruticosa is perhaps the most showy and desirable species, in this short but magnificent genus of plants. To the striking peculiarity of a shrubby stem, it unites the advantages of superior size; a profusion of very large flowers; and a facility of culture which ensures an annual succession of them: no wonder, therefore, that it is assiduously sought after by all who admire the beauties of Flora.

The shrubby Pæony was introduced into Britain in the year 1794, from China; where, as well as in Japan, many varieties of it are said to be common in almost every garden. We conceive it to be extremely distinct as a species, from the P. officinalis of all authors except Thunberg and Loureiro: yet Professor Willdenow has not enumerated it in his edition of Species Plantarum. Although introduced so long since, it is still rare; and must be treated as a very hardy green-house plant: indeed it succeeds best when planted in the earth and protected by a glass case; is propagated by slipping the roots, and by cuttings. All the plants hitherto received from China have double flowers; and among them there are two varieties; the rosy one here figured, from the Clapham collection; and another with purplish petals, the bases of which are of a still deeper colour. Flowers in April, making a very fine appearance; but is nearly scentless.

Paeonia suffruticosa

PLATE CCCLXXIV.

XERANTHEMUM PROLIFERUM.

Proliferous Eternal Flower.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

ESSENTIAL GENERIC CHARACTER.

Receptaculum paleaceum, aut nudum. Pappus setaceus. Calyx imbricatus, radiatus; radio colorato.	Receptacle chaffy, or naked. Feather bristly. Empalement tiled, rayed; the ray coloured.

SPECIFIC CHARACTER, &c.

Xeranthemum, caule fruticoso prolifero, floribus sessilibus, foliis granulato-subrotundis imbricatis obsoletis.	Xeranthemum, with a shrubby proliferous stem, sessile flowers, leaves grain-shaped roundish tiled and obsolete.

Xeranthemum proliferum. *Mant. Pl.* 467.—*Gmel. Syst. Nat.* 2. 1218.

Descriptio. Frutex erectus, proliferus, tripedalis et ultra. *Rami* teretes, lanâ densâ, niveâ undique vestiti; et ramulis numerosissimis, incipientibus, brevissimis, sæpe quasi reflexo-imbricatis, instructi. *Flores* solitarii magni, squamis calycinis lanceolatis, lætissime et profundissime rubicundis, basin versus valde lanatis, superioribus sensim majoribus.

REFERENCE TO THE PLATE.

1. An hermaphrodite floret magnified.
2. The chives, pointal and seed-bud magnified.
3. One of the scales of the empalement.
4. The receptacle.

Few genera of plants attract attention so universally and deservedly, as those of the genus Xeranthemum. All the species it contains are at once the favourites of the Botanist, the Gardener, and the Florist. The former, with pleasing satisfaction, contemplates their polished beauties still undiminished in his herbarium; while the latter find them (if sufficiently guarded from humidity) of easy management and ready growth. They bloom annually, and their durable and highly finished empalements are gathered and used in decorating many a mantle-piece; long, very long after they have ceased to live: whence the name of Eternal Flower. Many species of Gnaphalium possess a similar durability; and we have seen dried bouquets of both united, which were extremely beautiful.

The proliferous Eternal Flower is shrubby, commences flowering in May, lasts a long time in bloom, and in point of singularity and showiness yields to few of its congeners. It is a Cape plant: succeeds with the treatment of several species figured before by us; and is propagated by cuttings: was introduced some years since. Our figure was made from the Clapham collection.

Xeranthemum proliferum

PLATE CCCLXXV.

XERANTHEMUM BRACTEATUM.

Waved-leaved Eternal Flower.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

ESSENTIAL GENERIC CHARACTER.

RECEPTACULUM paleaceum, aut nudum. Pappus setaceus. Calyx imbricatus, radiatus; radio colorato.	RECEPTACLE chaffy, or naked. Feather bristly. Empalement tiled, rayed; the ray coloured.

SPECIFIC CHARACTER, &c.

XERANTHEMUM, foliis alternis amplexicaulibus longo-lanceolatis undulatis, caulibusque erectis pubescentibus; receptaculis nudis, radice annua.	XERANTHEMUM, with alternate stem-clasping long-spear-shaped waved pubescent leaves, pubescent erect stems, naked receptacles, and annual root.

XERANTHEMUM bracteatum. *Vent. Jard. de la Malmaison, tab. 2.*

REFERENCE TO THE PLATE.

1. A hermaphrodite floret magnified.
2. The chives, pointal and seed-bud magnified.
3. The pointal and seed-bud of a female floret magnified.
4. The receptacle.

XERANTHEMUM bracteatum has the appearance of proving as hardy an annual as a China Aster or French Marygold; and if so, will prove a considerable acquisition to our open borders; as it ripens its seeds well, and they vegetate readily.

In being annual, it recedes in its nature from all the species of the genus we are acquainted with, except X. annuum of Linnæus; which, however, we think, with Jussieu, of a perfectly distinct genus; on account of its squamous receptacle; and its variety (inapertum) a distinct species: the structure of the receptacle in the extensive class Syngenesia being of great consequence in the formation and distribution of genera.

The seedlings of the waved-leaved Eternal Flower are best raised early, like China Asters, on a gentle hot-bed, and, when large enough, should be transplanted out in showery weather, where they are intended to remain: they will become erect and bushy, attain the height of three feet or upwards, and produce their polished, golden-coloured flowers in autumn, in profusion. Possessing no recent specimens in bloom, we have omited a technical description. Our drawing was made last summer, from fine living plants at Mr. Colvill's, Nurseryman, in the King's Road; who raised it in the year 1799 from Port Jackson seeds sent him by Colonel Paterson.

Xeranthemum bracteatum

PLATE CCCLXXVI.

NEOTTIA MINOR.

The Lesser Neottia.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

ESSENTIAL GENERIC CHARACTER.

SPATHÆ vagæ. Spadix simplex. Corolla petala 5 æqualia erecta. Nectarium monophyllum indivisum acuminatum.

SHEATHS scattered. Fruit-stalk simple. Corolla 5 petals of equal length erect. Nectary one-leafed undivided sharp-pointed.

SPECIFIC CHARACTER, &c.

NEOTTIA, foliis ellipticis acuminatis quintuplinerviis.

NEOTTIA, with elliptic sharp-pointed leaves, with five nerves meeting above the base.

NEOTTIA minor, foliis planis, spathis virescentibus. *Jac. Ic.* 3. 16. *t.* 601.—SATYRIUM elatum. *Gmel. Syst. Nat.* 2. 56.—SERAPIAS Neottia. *Gmel. Syst. Nat.* 2. 59. *monente Dryandro, in Linn. Tr.* 2. 215.

DESCRIPTIO. *Folia* elliptica, acuminata, quintuplinervia, nervo medio subtus cæteris multo majore, viridia, infra pallidiora. *Caulis* tereti-compressus, pubescens 1—3-pedalis, foliis alternis spathaceis, remotis, instructus. *Flores* siccos exceptos non possideo. H.

REFERENCE TO THE PLATE.

1. A blossom, seed-bud and sheath.
2. The same magnified without the sheath, the cover of the tips elevated.
3. A flower without the honey-cup.
4. The chives and pointal as they appear detached.
5. The pointal magnified.

WHAT the Neottia minor wants in splendour and beauty, is counterbalanced by the interesting structure of its flowers; which however is not peculiar to it; but frequent in the fine order to which it belongs: the Orchideæ.

Until Jacquin established it as a distinct genus, it was considered as a species of, and retained a place in the genus Serapias, as well as the more showy N. speciosa of our third plate.

The Lesser Neottia is a native of the West Indies; is a very tender hot-house plant, but grows freely in rich earth; either in or out of the tan-bed; rises to the height of about three feet, and flowers in the month of March: is propagated by parting its roots; and although at present rare, was introduced to us before N. speciosa, in the year 1790, by Mr. John Fairbairn, gardener to the Worshipful Company of Apothecaries at Chelsea. Our drawing was taken at Lady De Clifford's collection at Paddington.

Pl. 376.

PLATE CCCLXXVII.

ALLIUM CHAMÆ-MOLY.

The Dwarf Moly.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA 6-partita, patens. Spatha multiflora. Umbella congesta. Capsula supera.	COROLLA 6-parted, expanding. Sheath many-flowered. Umbel crowded. Capsule above.

SPECIFIC CHARACTER, &c.

ALLIUM, scapo nudo subnullo, capsulis cernuis, foliis planis ciliatis.	ALLIUM, with a naked very short stalk, drooping capsules, and flat ciliated leaves.

ALLIUM Chamæ-Moly. *Willd. Sp. Pl.* 2. 83.—*Cavan. Ic.* 3. *p.* 4. *t.* 207. *f.* 1.?

DESCRIPTIO. *Radix* bulbus parvulus. *Folia* circiter 4, cruciatim disticha, expansa, linearia, subulata, basin versus parum canaliculata, et subcarinata; hirta, præcipue ad margines, unde ciliata. *Flores* umbellati subsessiles. *Scapus* brevissimus, reconditus, nudus. *Spatha* monophylla 3—8-flora, membranacea, 3-cuspidata. *Pedunculi* perbreves, teretes, superne incrassati, post florescentiam cernui. *Petala* 6, lanceolato-linearia, obtusa, alba, costâ utrinque virescente. *Filamenta* 6, tenuissima, alba, petalis duplo breviora. *Antheræ* luteæ. *Germen* superum, turbinatum, 6-sulcatum superne umbilicatum. *Stylus* albus longitudine filamentorum, sed robustior, apice furcatus. *Stigmata* fere nulla.

REFERENCE TO THE PLATE.

1. The sheath.
2. A flower spread open, magnified.
3. The seed-bud and pointal.
4. The same magnified.

ALTHOUGH now an old inhabitant of the British gardens, Allium Chamæ-Moly has ever been considered as a rare and interesting one; and is at present extremely scarce. It has several times been entirely lost to us, and again introduced from the south of Europe; where it occurs spontaneously.

In the Hortus Kewensis of Mr. Aiton, it is marked as a hardy species: perhaps inadvertently: because we never knew it survive a single winter in the open ground near London: notwithstanding our having repeatedly tried it, in situations by no means unfavourable: hence, possibly, its present rarity.

It is properly a hardy green-house plant: requires a light soil, and the treatment of an Ixia: increases both by offsets from the root, and by seeds: and flowers annually in the months of January and February. The leaves die down in April or May. In the structure of the flowers, but not the spathe, it agrees with Allium gracile of this work, which is not the gracile of the Hortus Kewensis. The genus Allium is an extensive one; but the present is the least species in it, and possesses the shortest stalk. Cavanilles describes and figures the style as subulate and entire; but in our plant that part is forked: and the spathe in his plant differs much from ours.

Allium chamæ-Moly

PLATE CCCLXXVIII.

GERANIUM FISSIFOLIUM.

Cloven-leaved Geranium.

CLASS XVI. ORDER IV.

MONADELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus rostratus, pentacoccus.	ONE POINTAL. Five summits. Fruit furnished with long awns, five dry berries.

SPECIFIC CHARACTER, &c.

GERANIUM, radice tuberosa, pinnulis foliorum inæqualiter fissis, scapis radicalibus simplicibus numerosis.	GERANIUM, with a tuberous root, the little wings of the leaves unequally cloven, and flower-stalks radical simple and numerous.

REFERENCE TO THE PLATE.

1. The empalement.
2. The chives spread open.
3. The pointal and seed-bud.
4. The same magnified.

THIS charming species of the tuberous-rooted family of Geranium adds one more to the considerable number in that branch of the genus, which we have already had the satisfaction of laying before our subscribers: nor is it the last we hope to have it in our power to treat them with; for we still possess drawings of two or three more. As a species, it is extremely distinct; and as a beauty, rivalled by very few of its affinities we are acquainted with. It does not appear to have been noticed by any author within our knowledge; flowers at the same time as Geranium barbatum, requires the same treatment, and belongs to L'Heritier's genus Erodium.

Our drawing was taken from the Clapham collection some time since; but we cannot at present procure any specimen of it: which prevents us from describing it in a technical manner.

Geranium fibsifolium

PLATE CCCLXXIX.

RHODODENDRON PONTICUM, *var. deciduum.*

Deciduous Purple Rhododendron.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Calyx 5-partitus. Corolla rotato-infundibuliformis. Stamina declinata. Capsula 5-locularis.	Empalement of 5 divisions. Blossom wheel-funnel-shaped. Chives declined. Capsule 5-celled.

SPECIFIC CHARACTER, &c.

Rhododendron, foliis lanceolatis deciduis, laciniis corollæ valde undulatis.	Rhododendron, with lanced deciduous leaves, and segments of the corolla very much waved.

REFERENCE TO THE PLATE.

1. The empalement and peduncle.
2. The same, with the chives and pointal.
3. A chive detached, the tip magnified.
4. The seed-bud and pointal.

The figure which accompanies this description represents a beautiful plant, which is probably an hybrid one; generated between some Azalea and the pontic Rhododendron. It is reported to have been raised some time since in the Nursery at Mile-end, from seeds which were grown in this country. In appearance, and in the structure of the leaves, it resembles its supposed mother the Rhododendron ponticum; but in their deciduous nature, and in some parts of the inflorescence; and likewise in other particulars; it betrays a considerable similitude to the American Azaleæ.

The pontic Rhododendron is a very sportive species; varies much in the formation and colour of its corolla; and we cultivate a strong variety of it with the flowers of R. maximum. The present variety has not any of its undulated flowers spotted with yellow, no more than that which is figured by Pallas in Flora Rossica: yet the spotting of the three superior segments of the corolla is pretty constant in most of the varieties which we have examined; and is even present, although faintly, in R. maximum. Our figure was taken at Whitley and Brames's in the month of May.

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PLATE CCCLXXX.

ACHYRANTHES PORRIGENS.

Divaricating Achyranthes.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

FLORES incompleti, inferi. Calyx 5-phyllus. Corolla 0. Stigma 2-fidum. Semina solitaria.

FLOWERS incomplete, beneath. Empalement 5-leaved. Corolla none. Summit 2-cleft. Seeds solitary.

SPECIFIC CHARACTER, &c.

ACHYRANTHES, foliis oppositis, lanceolatis, spicis ovatis, acutis. *Jacq. Hort. Schœnb.* 3. 349. *t.* 350.

ACHYRANTHES, with leaves opposite, spear-shaped, and egg-shaped sharp-pointed spikes.

DESCRIPTIO. Suffrutex ramulis distantibus, filiformibus, canescentibus. *Folia* opposita, elliptico-ovata, breviter petiolata, obsolete venosa, supra pallide viridia lente pubescentia; subtus pallidiora magisque pubescentia. *Flores* dichotome-paniculati, divaricati, capitulis ovalibus, persistentibus, ante et post exsiccationem læte purpureis pulchellisque, ut in Gomphrenâ perenni.

REFERENCE TO THE PLATE.

1. A flower complete.
2. The empalement magnified.
3. The blossom magnified.
4. The same cut open.
5. The seed-bud and pointal.

ACHYRANTHES porrigens was introduced into this country from Paris, in the year 1802, by Mr. Woodford of Vauxhall; but its native country we have not ascertained. Our figure was taken from a fine plant in the collection of J. Vere, esq. at Kensington Gore; where it is considered and treated as a hot-house plant of the more hardy kind; and rises to the height of 2 or 3 feet. Thrives well in rich earth, and flowers freely in spring, making an elegant but not showy appearance. Its flowers resemble those of Gomphrena perennis, and like them preserve their colours after death, if gathered before they are fully blown; and are capable of becoming both a novel and a graceful addition to our dried bouquets. Is propagated by cuttings, and promises fair to ripen seeds: but is at present extremely rare.

Ichyranthes perrigens.

PLATE CCCLXXXI.

SARRACENIA FLAVA

Yellow Side-saddle Flower.

CLASS XIII. ORDER I.

POLYANDRIA MONOGYNIA. Many Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CAPSULA 5-locularis. Stigma clypeatum. Calyx exterior 3-phyllus, superior 5-phyllus.	CAPSULE 5-celled. Stigma shield-shaped. Calyx outer 3-leaved, upper 5-leaved.

SPECIFIC CHARACTER, &c.

SARRACENIA, foliis erectis tubulatis, valva collo contracta, apice plana erecta.	SARRACENIA, with erect leaves, the valve contracted in the neck, with its point flat and erect.

SARRACENIA flava, *Walt. Fl. Carol.* 153.—*Aiton Hort. Kew.* 2. 225.—*Willd. Sp. Pl. tom.* 2. 1150.

REFERENCE TO THE PLATE.

1. A back view of the flower.
2. A flower deprived of its superior calyx leaves, showing the situation and structure of the stamina and style.

FEW of the productions of Flora exhibit such extraordinary appearances as those of the small but interesting genus Sarracenia: whether we contemplate their tubulose, water-holding, lidded leaves; or the strange conformation of their flowers; but more especially their enormous shield-shaped stigmata.

Walter enumerates four species of Sarracenia in his Flora Caroliniana, all perennial-rooted; and all at this time existing in the London gardens; but they are rare.

The Side-saddle Flowers are rather difficult of cultivation, and succeed best when treated as green-house bog plants; and when plentifully supplied with water. They are propagated by dividing their roots in spring. The specimen from which our figure was taken, was obligingly sent us by the honourable Mr. Irby of Farnham Royal, Bucks.

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Sarracena flava

PLATE CCCLXXXII.

LIPARIA VILLOSA.

Concave-leaved Liparia.

CLASS XVII. ORDER III.

DIADELPHIA DECANDRIA. Two Brotherhoods. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Calycis lacinia infima elongata. Alæ inferius bilobæ.	The lower segment of the empalement elongated. The wings two-lobed on the lower margin.

SPECIFIC CHARACTER, &c.

Liparia, floribus fasciculatis, foliis subrotundis concavis, extus tomentosis, intus villosis nudisque.	Liparia, with fasciculated flowers, leaves roundish concave, downy outwardly, and villose or naked within.

Liparia villosa *α. Willd. Sp. Pl.* 3. 1117. excluso synonymo Thunbergii; quod ad varietatem *β.* potius pertinet.

Liparia vestita, floribus capitatis, foliis ovatis concavis subtus lanatis. *Thunb. Prod.* 124. *et etiam Willd. Sp. Pl.* 3. 1115.

Genista africana tomentosa, folio cochleariformi, flore luteo. *Seba Thes.* 1. *p.* 38. *tab.* 24. *f.* 1.

REFERENCE TO THE PLATE.

1. The empalement.
2. The banner.
3. One of the wings.
4. The keel.
5. The chives and pointal.
6. The seed-bud.

The Liparia villosa is a native of the Cape of Good Hope, and rises with a shrubby, but not much branched stem, to the height of two or three feet. The silvery wool which clothes the younger branches and leaves of the plant gives it a very handsome appearance; yet by age it sometimes acquires a somewhat rusty tint. The leaves are nearly round, and assume, particularly when dried, a deep concave form, and very much resemble in shape, small bivalve shells; a circumstance noticed long since by the great naturalist Seba, as will appear on consulting the synonyms above given. The variety *β.* of Willdenow has much narrower, and not concave leaves; and is a very distinct species.

The concave-leaved Liparia is propagated, but not readily, by cuttings; prefers the treatment of a green-house plant, a light, but good soil; and, like most woolly plants, is very liable to be destroyed by damps. Our figure was taken in May last at George Hibbert's, esq.

Linaria villosa

PLATE CCCLXXXIII.

PITTOSPORUM UNDULATUM.

Waved-leaved Pittosporum.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CAPSULA 2—5-locularis, 5-valvis. Semina tecta pulpa. Petala conniventia in tubum.	CAPSULE 2—5-celled, 5-valved. Seeds covered with pulp. Petals converging into a tube.

SPECIFIC CHARACTER, &c.

PITTOSPORUM, foliis lanceolatis undulatis acutis.	PITTOSPORUM, with lance-shaped, waved sharp-pointed leaves.

DESCRIPTIO. Frutex erectus, ramosus. *Ramuli* fusci, cicatricibus foliorum asperi. *Folia* breviter petiolata, lanceolata, vel elliptico-lanceolata, acuta, undulata, rigida, lucida, viridia, et reticulatim venosa; subtus pallidiora. *Flores* terminales, racemosi, albicantes, pedunculis inæqualibus, rufescentibus, obsolete bracteatis. *Calyx* 5-fidus, deciduus, laciniis acutis, recurvis. *Corolla*, petala 5, lineari-lanceolata, obtusa, revoluta, inferne in tubum conniventia. *Stamina*, filamenta 5, receptaculo inserta, stricta, subulata, subcompressa, altitudine styli; antheræ erectæ, luteæ. *Stylus* albidus, petalis brevior. Stigma obtusum.

REFERENCE TO THE PLATE.

1. The empalement.
2. One of the petals.
3. The chives and pointal, with one tip magnified.
4. The pointal and seed-bud magnified.

THE Pittosporum undulatum is a new plant, introduced into this country in the year 1793 from New Holland, where it is a native. It rises with a shrubby stem, which is branched above, to the height of several feet. Its branches are adorned with a fine undulated foliage that is rigid to the touch; and are terminated, in the month of May, with bunches of whitish flowers.

Is as yet a very rare species, and is raised from imported seeds; and likewise by cuttings. Requires, and thrives well with, the common treatment of a green-house or conservatory plant; and deserves a place in every extensive collection. Our drawing was made from a specimen in the Nursery of Messrs. Colvil, in the King's Road.

Pl. 583

PLATE CCCLXXXIV.

XERANTHEMUM VARIEGATUM.

Variegated Eternal Flower.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

ESSENTIAL GENERIC CHARACTER.

Receptaculum paleaceum, aut nudum. Pappus setaceus. Calyx imbricatus, radiatus; radio colorato.	Receptacle chaffy, or naked. Feather bristly. Empalement tiled, rayed: the ray coloured.

SPECIFIC CHARACTER, &c.

Xeranthemum, floribus solitariis nutantibus, squamis calycinis obtusis maculatis.	Xeranthemum, with solitary nodding flowers, and the scales of the empalement obtuse and spotted.

Xeranthemum variegatum. *Syst. Veg.* 614.—*Syst. Veg. Litchf. ed.* 2. *p.* 614.—*Reich. Syst. Pl. pars* 3. 766.

Xeranthemum africanum Gnaphalii foliis tomentosis, foliis et squamorum summitatibus ferrugineis. *Raii Suppl.* 181.

REFERENCE TO THE PLATE.

1. An hermaphrodite floret magnified.
2. The chives, pointal, and seed-bud magnified.
3. One of the scales of the empalement.
4. The receptacle.

The Xeranthemum variegatum is a small shrub, and seldom attains the height of two feet. It is a native of the Cape of Good Hope, and was lately introduced from that country to the collection of George Hibbert, esq. where our drawing was taken in the month of May. It requires the same treatment as the other species of the genus, and is propagated in the same manner. The leaves are linear-lanced, embrace the stem alternately, and when old are often reflexed in an imbricated manner: they are clothed, as well as the stems, with wool; and resemble fine woollen cloth to the touch, and often have their edges and points of a purplish rusty colour. The bracteated peduncles are from one to three in number, at the end of each branch. The young flowers are more highly coloured than the old ones, which sometimes assume a nodding attitude: when aged they bleach almost white, except the points of the calycine scales, which always retain a purplish blotch.

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Xeranthemum variegatum

PLATE CCCLXXXV.

CAMPANULA LACINIATA.

Ragwort-leaved Bell Flower.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla campanulata, fundo clauso valvis staminiferis. Stigma 3-fidum. Capsula infera, poris lateralibus dehiscens.	Corolla bell-shaped with the mouth closed by staminiferous valves. Summit 3-cleft. Capsule beneath, gaping with lateral pores.

SPECIFIC CHARACTER, &c.

Campanula, capsulis obtectis pedunculatis, foliis serratis; radicalibus lyratis; caulinis lanceolatis.	Bell Flower, with pedunculated covered capsules, and serrated leaves; the root ones lyrated; the stem ones spear-shaped.

Campanula laciniata. *Willd. Sp. Pl.* 1. 911.

Campanula Græca, saxatilis, Jacobeæ foliis. *Tourn. Voyage* 1. 201. cum icone.—*Coroll. Inst. Rei Herb.* 3.

Descriptio. Herba undique villosa. *Radix* biennis. *Folia* radicalia lyrato-pinnatifida, pinnulis incisis; caulina alterna, sublanceolata, inciso-serrata. *Pedunculi* bracteis subovatis dentatis instructi. *Flores* numerosi cærulei.

REFERENCE TO THE PLATE.

1. The empalement.
2. The blossom laid open.
3. The seed-bud, chives and pointal.
4. A chive magnified.
5. The seed-bud and pointal, the summit magnified.

The Campanula laciniata, although introduced into the British gardens so long since as the year 1790, is still a very scarce species: this is not owing to a want of beauty, but to its having a biennial root, and not perfecting its seeds well, except in favourable situations. It was originally discovered by the celebrated French traveller and botanist Tournefort, about a century since, on a remarkable rock in the Island of Sikino in Greece; where he appears to have been highly delighted with its beauty and appearance, and says it is "*the fairest Campanula in all Greece**." However applicable this encomium may have been in those days, it ceases to be so now; for, without detracting from the fairness and beauty of the present plant, we have in cultivation another Grecian Campanula, still more fair and beautiful, and much more rare, which we hope soon to have the pleasure of presenting to our subscribers.

The Ragwort-leaved Campanula is usually treated as an alpine plant, and wintered in a frame: it is increased by seeds, and is impatient of superfluous moisture.

* Tournefort's Voyage, vol. i. page 201.

Campanula laciniata

PLATE CCCLXXXVI.

ANTHERICUM PUGIONIFORME.

Dagger-leaved Anthericum.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX patens aut connivens. Stamina filamentis filiformibus hirsutis. Stigma 1. Semina angulata. *Juss. Gen. Pl.* 52.

EMPALEMENT expanding or converging. Chives thread-shaped hairy. Summit 1. Seeds angulated.

SPECIFIC CHARACTER, &c.

ANTHERICUM, foliis carnosis linearibus acuminatis canaliculatis, scapo foliis duplo longiore.

ANTHERICUM, with fleshy linear acuminated channelled leaves, with a stalk twice their length.

ANTHERICUM pugioniforme. *Willd. Sp. Pl.* 2. 144.

ANTHERICUM filamentis barbatis acaule, radice subrotunda perenni, foliis crasso-subulatis antice sulcatis apice teretibus pulposis erectis. *Jacq. Ic. rar.* 2. *t.* 405.

PETALA sex, oblonga, obtusa, plana, patentissima, lutea, cum fascia longitudinali media utrinque viridi. Filamenta subulata patula, petalis breviora, flavescentia, circa medium omnia ex viridi-flavo dense barbata. Antheræ oblongæ, flavæ. Germen ovatum, superum. Stylus filiformis, erectus, longitudine staminum. Stigma obtusum. *Jacq. Collect. Supp.* 83.

REFERENCE TO THE PLATE.

1. The seed-bud, chives and pointal.
2. A chive magnified.
3. The seed-bud and pointal.

A NATIVE of the Cape of Good Hope, from whence it was sent some time since to the collection of G. Hibbert, esq. Clapham Common; where our figure was taken last autumn. It is rather more singular in its appearance, than beautiful; but is at present extremely rare, and deserves a place in all collections; prefers the treatment of a green-house succulent plant, and requires much air; but must be carefully defended from superfluous humidity; particularly when not in a state of active growth; and is best kept constantly in the house. Is propagated by parting its roots, but not very readily: and requires a light, dry soil.

Anthericum pugioniforme

PLATE CCCLXXXVII.

XERANTHEMUM RIGIDUM.

Rigid-leaved Eternal Flower.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

ESSENTIAL GENERIC CHARACTER.

RECEPTACULUM paleaceum, aut nudum. Pappus setaceus. Calyx imbricatus, radiatus; radio colorato.	RECEPTACLE chaffy, or naked. Feather bristly. Empalement tiled, rayed; the ray coloured.

SPECIFIC CHARACTER, &c.

XERANTHEMUM, floribus parvis paniculatis; foliis villosis lineari-lanceolatis acuminatis viridibus.	XERANTHEMUM, with small paniculated flowers; and hairy linear-lanced sharp-pointed green leaves.

DESCRIPTIO. Suffrutex, ramulis teretibus, subflexuosis, villosis. *Folia*, superiora remotiora, alterna, amplexicaulia, lineari-lanceolata, acuminata, canaliculata, rigida, villosa, viridia, superne patula. *Flores* paniculati, terminales, parvi in hoc genere, et inconspicui. *Pedunculi* lanuginoso-villosi, bracteati. *Calyces* argentei. *Corollulæ* flavicantes.

REFERENCE TO THE PLATE.

1. A scale of the empalement.
2. One of the hermaphrodite florets magnified.
3. The chives and pointal.
4. The receptacle.

THE plant here delineated is by no means a conspicuous one; nevertheless, as it is a genuine member of a favourite genus, and at the same time a new species, and almost the last of its fine family we shall be able to present to our readers, it cannot fail to be acceptable to them.

The present species is a weak shrubby plant, flowers freely, and succeeds with the treatment of the other eternal flowers, and is propagated in the same manner: and was lately raised from Cape seeds at our never-failing source of rare plants, the choice collection of G. Hibbert, esq. where the figure here given was made in May last.

It is very closely allied to X. argenteum of our 327th plate, which is the X. paniculatum of Thunberg and the younger Linnæus.

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Xeranthemum rigidum

PLATE CCCLXXXVIII.

MESEMBRYANTHEMUM INCLAUDENS.

Unclosing-flowered Fig-Marygold.

CLASS XII. ORDER IV.

ICOSANDRIA PENTAGYNIA. Twenty Chives. Five Pointals.

ESSENTIAL GENERIC CHARACTER.

Petala valde numerosa, linearia, basi cohærentia.	Petals very numerous, linear, cohering at the base.

SPECIFIC CHARACTER, &c.

Mesembryanthemum, foliis triquetris lævibus perviridibus, carinâ gibbosâ, corollis inclaudentibus, petalis interioribus valde abbreviatis imbricatisque.	Fig-Marygold, with triquetrous smooth deep green leaves, with a gibbous keel, unclosing flowers, and interior petals extremely abbreviated and imbricated.

Descriptio. M. mutabili nobis affinis, sed species valde distincta: differt in his, foliis lævioribus, et longe viridioribus, minusque mucronatis, marginibus sæpius plus minusve purpureis: floribus speciosis semper apertis; nec inconspicuis, nocteque clausis; saturatissime et vivacissime rubicundis, petalis cuneato-linearibus, latis in hoc genere, apicibus erosis; interioribus (petalis) maxime abbreviatis, imbricatisque quasi in stellam. *Calyx* subanceps, 5-fidus, membranis rubro punctatis. *Filamenta* recondita, brevissima omnium (vix linearia), alba, basi purpurea. *Antheræ* albidæ, circiter longitudinem filamentorum. *Styli* 5, erecti, pergrossi, virides, altitudine antherarum. Capsulam non vidi. *H.*

REFERENCE TO THE PLATE.

1. The empalement, seed-bud, chives and pointals.
2. The same cut perpendicularly, to show the insertion of the chives and pointal.

Our figure represents a perfectly new and nondescript, and at the same time very ornamental species of Mesembryanthemum: each flower possesses the valuable property of lasting about ten days in beauty, and never closes after being once expanded: a circumstance of exceeding rare occurrence in this very extensive genus; no fewer than 214 distinct species of which we have now a knowledge of *.

M. inclaudens rises with a branched, shrubby stem, to the height of 10 or 12 inches, and is cultivated in the same manner, and propagated with the same facility, that is common and well known in this tribe: they are all very hardy green-house plants; require in winter as much air as possible, if frost is but avoided; strike freely from cuttings; are great lovers of hot, sunny and sheltered situations, when out for the summer; and are better not watered over their heads, but at the roots only.

The present species was raised from Cape seeds last season, in the collection of G. Hibbert, esq. where our drawing was made in July. Mr. Ross, Nurseryman at Stoke Newington, has also raised it from Cape seeds, and flowered it in July; and he likewise very fortunately flowered at the same time several fine specimens of M. rostratum; the fructifications of which have not been produced before in Europe, that we know of, although the plant has been common in the English gardens ever since the year 1732, and is one of the very few which Dillenius thought proper to figure without flowers, in his celebrated Hortus Elthamensis.

* 211 are described in my Miscellanea Naturalia, lately published. *H.*

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PLATE CCCLXXXIX.

DOMBEYA ERYTHROXYLON.

Saint Helena Red-wood.

CLASS XVI. ORDER VII.

MONADELPHIA DODECANDRIA. Threads united. Twelve Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX duplex, exterior 3-phyllus deciduus. Corolla 5-petala. Stamina 10—20, quorum 5 sterilia. Stylus 5-fidus. Capsulæ 5, coalitæ uniloculares, 1. s. polyspermæ.

EMPALEMENT double, outer 3-leaved deciduous. Corolla 5-petalled. Chives 10 to 20, of which 5 are sterile. Style 5-cleft. Capsules 5, conjoined one-celled, 1- or many-seeded.

SPECIFIC CHARACTER, &c.

DOMBEYA, foliis ovatis acuminatis cordatis, subtus tomentosis reticulatis, pedunculis subtrifloris, floribus pentandris.

DOMBEYA, with ovate acuminated heart-shaped leaves, downy and reticulated beneath, peduncles about 3-flowered, and pentandrous flowers.

DOMBEYA Erythroxylon. *Willd. Sp. Pl.* 3. 725.

PENTAPETES Erythroxylon, foliis cordatis subcrenatis subtus tomentosis rugoso-reticulatis, floribus subumbellatis decandris. *Ait. Hort. Kew.* 2. 438.

ALCÆA arborea, populi nigræ foliis, prona parte albicantibus, flore amplissimo rubicundo. *Pluk. Mant.* 6. *t.* 333. *f.* 1.

DESCRIPTIO. Frutex dumosus; ramulis, petiolis teretibus, paginis inferioribus foliorum, pedunculis calycibusque tomentoso-canis, et ferrugineo dense punctulatis. *Folia* alterna, petiolata, cordata, subintegra, supra perviridia, utraque venosa, subtus obsolete reticulata. *Flores* malvacei, speciosi. *Calyx* duplex, exterior minutus, 3-phyllus, foliolis subulatis, sesquilinearibus, superior 5-phyllus, foliolis lineari-lanceolatis, acuminatis. *Petala* 5, alba, retuse cuneata, venosa, basi uno latere, gibbosa, imbricata. *Stamina*, filamenta 10, atra, patula, quorum 5 sterilia, cæteris duplo longiora. *Antheræ* erectæ luteæ. *Stylus* teres, albus, 5-fidus, antheras superans.

REFERENCE TO THE PLATE.

1. The empalement.
2. One of the petals.
3. The chives and pointal.
4. The chives spread open.
5. The pointal and seed-bud.

THE handsome plant here represented is a native of Saint Helena, and is known by the name of Saint Helena Red-wood. Although introduced into this country by Sir Joseph Banks in the year 1772, it is at this time one of our very rarest and most desirable of hot-house plants. Mr. Aiton enumerates it in the Hortus Kewensis, but marks no time for its flowering; which therefore, we must suppose, but seldom occurs. Our specimen was obligingly sent us by T. Evans, esq. from his fine collection at Stepney in June 1803, and we last month saw it beautifully in bloom at the honourable Charles Greville's, Paddington.

In the colour of its flowers, and in other particulars, it appears to vary. Plukenet calls them rubicund: ours were white: and in the extensive herbarium of A. B. Lambert, esq. we have examined a Saint Helena specimen with purple flowers, and less hoary but more reticulated leaves, which wanted the minute ferruginous spotting so abundant upon ours. It is propagated by cuttings in the usual way.

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Lambeya Erythrorrhiza

PLATE CCCXC.

AMARYLLIS SPECTABILIS.

Waved-leaved Amaryllis.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA hexapetaloidea irregularis. Filamenta fauci tubi inserta declinata inæqualia proportione vel directione.

COROLLA 6-petal-like irregular. Chives inserted into the throat of the tube, bent downward, and unequal in proportion or direction.

SPECIFIC CHARACTER, &c.

AMARYLLIS, spatha multiflora, tubo corollæ laciniis sesquilongiore, foliis lato-subulatis serrulatisque scapo longioribus.

AMARYLLIS, with a many-flowered sheath, the tube of the corolla longer than its segments, the leaves broad-awl-shaped serrulated and longer than the stalk.

DESCRIPTIO. *Radix* bulbus mediocris tunicatus, et rotundatus, pallidusque. *Folia* multifaria, lato-subulata, sesquipedalia, subcanaliculata, lævia, viridia, carinâ pallidâ, striisque parallelis ad lucem utrinque etiam pallidis; basin versus undulata, et aliquo attenuata; margine cartilagineo, serrulis minutissimis, expansis, albis, remotisque, aspero. *Scapus* foliis duplo brevior, rubens, grossus, obtuse compressus, obsolete at irregulariter sulcato-striatulus, æquali crassitie. *Spatha* diphylla, subquadriflora, valida, foliolis lineatis, apicibus obtusissimis, et minute emarginatis, intus albis, extus virentibus, tinctura rubedinis. *Flores* sessiles, hexapetaloidei, tubulosi: tubus curvatus, angulatus, sulcatus, 5-uncialis et ultra, at gracilis, laciniis sesquilongior. *Petala* late lanceolata, undulata, acuta, alba, vittâ purpureâ. *Filamenta* alba, declinata, laciniis longe breviora. *Antheræ* versatiles, arcuatæ, magnæ, demum atræ. *Germen* sessile, compressum, viride. *Stylus* albus, superne purpureus, antheras superans. *Stigma* minutum. Infra germina, filamenta perpauca, staminiformia, sæpius adsunt.

REFERENCE TO THE PLATE.

1. A petal with its chive attached.
2. The seed-bud and pointal.

THE magnificent species of Amaryllis here represented is a native of Sierra Leona; and was introduced from thence to this country, by Professor Afzelius, several years ago; but has not yet been described by any author whose works have reached us: although it will unquestionably be inserted in the Flora of that part of Africa, which the abovementioned learned Botanist is said to be preparing for publication.

Although a very tender hot-house species, it flowers freely in the tan-bed, in rich earth; but its elegant flowers, like those of Amaryllis ornata, which it also resembles in foliage, are of very short duration, and do not individually last in full beauty longer than a day; unless they are taken out of the hot-house as soon as expanded, and placed in some cool apartment; which indeed they well deserve. Our figure was taken from plants in very great perfection, at J. Vere's, esq. Kensington Gore, in the month of July.

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PLATE CCCXCI.

NYMPHÆA LOTUS.

The Ægyptian Lotus.

CLASS XIII. ORDER I.

POLYANDRIA MONOGYNIA. Many Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA polypetala. Calyx 4-s. 5-phyllus. Bacca multilocularis, loculis polyspermis.	BLOSSOM many-petaled. Empalement 4- or 5-leaved. Berry many-celled, with many seeds in each cell.

SPECIFIC CHARACTER, &c.

NYMPHÆA, foliis cordatis dentatis glaberrimis lobis approximatis, calyce tetraphyllo. *Willd. Sp. Pl.* 2. 1153.	NYMPHÆA, with heart-shaped dentated very smooth leaves, with the lobes approximated, and a four-leaved empalement.

REFERENCE TO THE PLATE.

1. The seed-bud and pointal. 2. A chive. 3. A transverse section of the seed-bud. 4. A capsule.

THERE can be no doubt, but that the plant here figured is the true "Nymphæa Lotus" of Linnæus, and that it is the plant mentioned by Pliny in Nat. Hist. lib. 13. cap. 17. and lib. 22. cap. 21. He there makes mention of a plant which is found at the ebbing of the Nile, the fruit of which resembles a poppy, and the seed of the size of millet: this exactly answers to the "Nymphæa" before us, and does not at all apply to the "Nelumbium," the kernels of which are of the size of nuts or thereabouts: he also remarks that the heads are dried by the natives, and that the seed is beat and broken and made into bread.—Herodotus also mentions that the Egyptians baked the seed into bread, and ate of the roots, or rather tubercles, which resembled an apple and had an agreeable flavour. Vide Euterpe 92—Melpomene 177.

Sonnini, in his Voyages, mentions the Lotus as being most abundant in Egypt, and having *white flowers*; and I apprehend the red one to be nothing but a variety of this.

When we know that the Egyptians worship the Nile, as the Indians do the Ganges, we cannot wonder that a plant so beautiful, and so abundant in that river, should also become an object of adoration; and we find it continually though roughly engraved on their idols.—Indeed Pierius, in his Hieroglyphics, mentions that the Egyptians worshipped the Lotus as the type of the rising Sun.—It is always found on the statues of Osiris, the Egyptian Apollo; it is also to be seen on the medals struck in Egypt by the Romans, and especially during the reign of Adrian, who held it in such veneration, that the medals which that Emperor caused to be struck in Egypt, in honour of his favourite Antinoüs, uniformly represent the latter with the Lotus on his head; whence the expression "Antinoëan crown."—Various animals in the Hieroglyphics appear to have it, as the hawk, the lion, and the ram. It is to be seen on most of, though not all, their deities; as Jupiter Ammon, Iris, Serapis, Orus, Canopus, and most particularly on Harpocrates, who is often figured sitting in the midst of it.—See Cuper's Harpocrates, passim. The Lotus symbolizes Plenty on many of the medals of Egypt and Sicily, probably from being so great an article of food among the inhabitants, and from its generally appearing at the reflux of the Nile, when the banks were again open to the various uses they might be put to. Whether or not the Lotus here figured, which I think I have sufficiently proved to be the true Egyptian one, is the same which grows in the Ganges, and is in such high veneration throughout the continent of India, China, and Japan, can only be proved by a comparison of the two together: certain however it is, that a plant of great similarity to it, if not quite the same, is to be found on most of their idols also; and as the Ganges is worshipped, so may the Lotus be, with which it abounds. It expands in the dusk of the evening, and closes about ten in the morning.

To the Right Honourable the Marquis of Blandford we are indebted for the description of this very interesting plant, accompanied by a fine living specimen from his splendid collection at White Knights near Reading, Berks.

Nymphæa Lotus

PLATE CCCXCII.

IXIA COLUMNARIS, *var. angustifolia.*

Columnar-chived Ixia. Narrowed-leaved Var.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sex-petala patens æqualis. Stigmata tria erectiusculo-patula.	BLOSSOM 6-petals spreading equal. Summits three upright-spreading.

SPECIFIC CHARACTER.

IXIA, filamentis basi cohærentibus; floribus subcapitatis, petalis purpureis basi saturatioribus, foliis lineari-ensiformibus.	IXIA, with threads united at the base, flowers rather in heads, petals purple with darker bases, and linear-sword-shaped leaves.

REFERENCE TO THE PLATE.

1. The two valves of the sheath.
2. An entire flower, cut open in the tube only, which is extended nearly to the end of the threads.
3. The chives cut open and magnified.
4. The pointal complete, one of the summits detached and magnified.

THE figure which accompanies this description represents the narrowest-leaved variety of the columnar-chived Ixia hitherto introduced into the British gardens.

Like the other varieties already figured in this work, it is a native of the Cape of Good Hope; and like them must be treated as a Cape-bulb; requiring only the protection of the green-house, and a mixture of loam and peat; and no water during its quiescent state.

It flowers in June or July, and is a very brilliant variety. Our figure was taken some time since at Messrs. Colvill's, Nurserymen in the King's Road.

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Ixia columnaris Var angustifolia

PLATE CCCXCIII.

FUMARIA FORMOSA.

Beautiful Fumitory.

CLASS XVII. ORDER II.

DIADELPHIA HEXANDRIA. Two Brotherhoods. Six Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX diphyllus. Corolla ringens. Filamenta duo membranacea, singula antheris tribus.	EMPALEMENT two-leaved. Blossom gaping. Threads two, membranaceous, each with three tips.

SPECIFIC CHARACTER.

FUMARIA, scapis erectis, pedunculis cernuis subtrifloris bracteatis, corollis basi bilobis.	FUMITORY, with erect stalks, cernuous nearly 3-flowered bracteated peduncles, and blossoms two-lobed at the base.

REFERENCE TO THE PLATE.

1. The empalement.
2. A flower spread open, showing the insertion of the chives, with one filament detached and magnified.
3. The seed-bud and pointal, the summit magnified.

THE beautiful species of Fumaria which we have here represented is a hardy plant; but of what country it is a native, or by whom first introduced into the British gardens, we have yet to learn; neither have we hitherto been able to ascertain it in any author. Our drawing was made from very fine specimens communicated to us by William Anderson, botanic gardener to James Vere, esq. Kensington Gore, in whose collection it flowered copiously in the month of June last.

It is allied to the tuberous-rooted species; and perhaps nearer to Fumaria nobilis than any other: succeeds very well in a mixture of peat earth and loam, but prefers a sheltered and a somewhat shaded situation; and makes a very fine appearance when in flower: it also possesses unusual elegance in its foliage.

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Fumaria formosa

PLATE CCCXCIV.

MIMOSA LINIFOLIA.

Flax-leaved Mimosa.

CLASS XXIII. ORDER I.

POLYGAMIA MONŒCIA. Various Dispositions upon one Plant.

ESSENTIAL GENERIC CHARACTER.

HERMAPH. Calyx 5-dentatus. Corolla 5-fida. Stamina 5 sive plura. Pistillum 1. Legumen.	HERMAPH. Empalement 5-toothed. Blossom 5-cleft. Chives 5 or more. Pointal 1. A Pod.
Mascul. Calyx 5-dentatus. Corolla 5-fida. Stamina 5—10, sive plura.	Male. Empalement 5-toothed. Blossom 5-cleft. Chives 5—10, or more.

SPECIFIC CHARACTER, &c.

MIMOSA, foliis sparsis suberectis angustissime linearibus.	MIMOSA, with scattered erectish very narrow linear leaves.

MIMOSA linifolia. *Ventenat Plantes Nouvelles,* tab. 2.

REFERENCE TO THE PLATE.

1. The empalement and blossom magnified.
2. The empalement detached and magnified.
3. A chive magnified.
4. The seed-bud and pointal magnified.

THE Mimosa linifolia is a native of New South Wales, from whence it was introduced to this country several years ago.

It has been considered in the gardens as a new species, and is known under the name of pinifolia; but as it has been recently named linifolia, by M. Ventenat in his Plantes Nouvelles, from plants which we believe were sent to France from England, we have adopted the latter name.

It is a very elegant greenhouse shrub; and arises with stiff erect slender branches to the height of several feet, and does not flower when young.

The Flax-leaved Mimosa is propagated chiefly by seeds, and either not at all, or with great difficulty, from cuttings; and is usually cultivated in light rich earth.

The individual here represented flowered very fine in the month of May at Mrs. Wright's, Bayswater; where our drawing was made.

Mimosa linifolia

PLATE CCCXCV.

ANTHERICUM PANICULATUM.

Panicled Anthericum.

CLASS VI. ORDER I.

HEXANDRIA MONOGYNIA. Six Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX patens aut connivens. Stamina filamentis filiformibus hirsutis. Stigma 1. Semina angulata. *Juss. Gen. Pl.* 52.

EMPALEMENT expanding or converging. Chives thread-shaped hairy. Summit 1. Seeds angulated.

SPECIFIC CHARACTER.

ANTHERICUM, foliis canaliculato-ensiformibus gramineis, scapo paniculato diffuso, radice tuberosâ.

ANTHERICUM, with channel-sword-shaped grassy leaves, diffuse panicled flower-stem, and a tuberous root.

REFERENCE TO THE PLATE.

1. A leaf.
2. The chives and pointal.
3. The pointal and seed-bud, the summit magnified.
4. The seed-bud magnified.

THE Anthericum paniculatum is a native of New Holland, and was lately introduced from that country to this. In its tuberous root and woolly filaments, it accords very well with the genus Anthericum, as defined by Jussieu, in his celebrated Genera Plantarum; yet recedes from it in wanting thick and fleshy leaves; which all the African species of that genus have: hence it approximates, in habit at least, the genus Phalangium of Jussieu, which Willdenow makes a division only of Anthericum.

But there is nothing peculiarly remarkable in the present species differing a little from its African congeners, because most of the Australasian plants differ in some very striking particular or other from their nearest affinities in all other parts of the world; and very often constitute new genera.

It succeeds with the treatment of the Cape species, loves water, when in active growth; continues in flower several of the summer months, and is propagated by parting its roots in autumn, and by seeds, which it sometimes perfects in this country.

Anthericum paniculatum

PLATE CCCXCVI.

CAMPANULA VERSICOLOR.

Various-coloured Bell-flower.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA campanulata, fundo clauso valvis staminiferis. Stigma 3-fidum. Capsula infera poris lateralibus dehiscens.	COROLLA bell-shaped with the mouth closed by staminiferous valves. Summit 3-cleft. Capsule beneath gaping with lateral pores.

SPECIFIC CHARACTER.

CAMPANULA, foliis glabris cordato-ovatis undulatis, foliolis calycinis subulatis reflexis, corollis rotato-campanulatis.	BELL-FLOWER, with smooth heart-ovate waved leaves, calyx leaflets awl-shaped reflexed, and wheel-bell-shaped blossoms.

REFERENCE TO THE PLATE.

1. A radical leaf.
2. The empalement, chives and pointal.
3. A chive.
4. The seed-bud and pointal.

WITHOUT a doubt the present is not only a new species, but likewise one of the most showy in the extensive genus Campanula; nearly all the individuals of which have charms enough to entitle them to a place in the flower-garden.

When our readers are told that it is an inhabitant of Greece, most of them will readily perceive it is the very species announced in our last number, as one that in beauty surpasses the *fairest of the fair*, and was communicated to us, as well as the laciniata, by the Hon. W. H. Irby, of Farnham Royal, Bucks.

It was first raised from seeds brought to this country from Greece, by the late and much regretted Professor Sibthorp. There are two or three varieties of it, which are all hardy, and flower in July; rising to the height of about two feet, and making a very splendid appearance. They succeed best in peat earth and loam; and are propagated by seeds and by parting their roots: and are at present much sought after by all collectors.

Campanula versicolor

PLATE CCCXCVII.

STEWARTIA MARILANDICA.

Maryland Stewartia.

CLASS XVI. ORDER XIII.

MONADELPHIA POLYANDRIA. One Brotherhood. Many Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX quinquepartitus. Petala quinque. Stamina numerosa. Stylus 1. Stigma capitatum subquinquelobum. Capsula lignosa conica, calyci reflexo persistenti insidens, quinquelocularis quinquevalvis, valvis crassis ligneis medio septiferis; loculis 1—2-spermis. *Uster's Juss. Gen. Pl.* 324.

EMPALEMENT five-parted. Petals five. Chives numerous. Style one. Summit headed somewhat five-lobed. Capsule woody conical, sitting on the reflexed persistent empalement, five-celled five-valved, with the valves thick woody and with partitions in the middle; with cells one- or two-seeded.

SPECIFIC CHARACTER.

STEWARTIA, foliis alternis ellipticis acuminatis obsolete et remote serrulatis, subtus villosis; floribus solitariis albis.

STEWARTIA, with alternate elliptic acuminated obscurely and remotely serrulated leaves, hairy beneath; and solitary white flowers.

REFERENCE TO THE PLATE.

1. The calyx, seed-bud and pointal.
2. The chives spread open.

THE Stewartia, which we have here represented, is known and cultivated in His Majesty's, and in various other collections of plants in the vicinity of the metropolis, under the name of Marilandica; under which title it likewise occurs in the third edition of Donn's Hortus Cantabrigiensis: but we do not find the name in any other book: neither can we, for want of sufficient specimens, ascertain whether it is specifically distinct from Stewartia virginica, or a variety only of that species. From S. virginica, however, as figured by Cavanilles in his Dissertationes, (tab. 159) it appears to differ, in having larger and much less serrated leaves, and in their being villose beneath; and likewise in its larger and entirely white petals. Cavanilles' plant has one of its petals of a yellow-green colour. From Stewartia Malachodendron it is known, at first sight, by its entire, not lacerated petals; independent of the other *generical* distinctions, according to Jussieu and Cavanilles, which exist between them.

The Maryland Stewartia is, as its name imports, a native of Maryland in America. It is a hardy shrub, and is propagated by layers; but does not thrive unless in a moist situation, planted in a mixture of peat earth and a little loam; and flowers in August and September.

The plant here figured was obligingly communicated to us, in bloom, by the Marquis of Blandford, with whom it flowered in July last, we believe for the first time in this country.

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Stewartia Marilandica

PLATE CCCXCVIII.

WACHENDORFIA VILLOSA.

Villose Wachendorfia.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla sex-petala, inæqualis, infera. Capsula trilocularis, supera.	Blossom six-petalled, unequal, beneath. Capsule above three-celled.

SPECIFIC CHARACTER.

Wachendorfia, foliis lineari-ensiformibus plicatis triplinerviis, cauleque villosis, floribus paniculatis.	Wachendorfia, with the triple-nerved plicated linear-sword-shaped leaves, and stem villous; and panicled flowers.

REFERENCE TO THE PLATE.

1. A floral leaf.
2. The chives and pointal.
3. The pointal and summit magnified.
4. The seed-bud cut transversely.

The villous-leaved Wachendorfia is not enumerated in Professor Willdenow's new edition of Species Plantarum, and appears to be a new species. It is very closely allied to W. hirsuta, but differs sufficiently from that species in the shape of the leaves. It is likewise extremely near akin to W. graminea, which, however, is destitute of all pubescence, whilst ours is pubescent all over. Its flowers are yellow, like those of hirsuta and paniculata; it rises to the height of a foot and a half, prospers with the usual treatment of Cape Bulbs; and was communicated to us in flower, in June last, by W. Anderson, botanic gardener to J. Vere, Esq. Kensington Gore, where it flowers in great perfection, and increases pretty readily by the roots.

Wachendorfia villosa.

PLATE CCCXCIX.

COMMELINA TUBEROSA.

Tuberous-rooted Commelina.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA sex-petala. Nectaria quinque, cruciata, filamentis propriis inserta.	BLOSSOM, six-petalled. Nectaries five, cross-shaped, inserted on their proper filaments.

SPECIFIC CHARACTER.

COMMELINA, corollis æqualibus, foliis sessilibus ovato-lanceolatis, subtus villosis et inde ciliatis, radice tuberosâ. Commelina tuberosa. *Willd. Sp. Pl.* 1. 251.—*Dill. Elth. t.* 79.	COMMELINA, with equal flowers, sessile ovate-spear-shaped leaves, villose beneath and thence ciliated, and a tuberous root.

REFERENCE TO THE PLATE.

1. The empalement, chives, and pointal.
2. A petal.
3. One of the nectaries.
4. A chive magnified.
5. The seed-bud and pointal, ummit magnified.

THE herbaceous genus Commelina is a very singular one; and many of its species are remarkable, not so much for the size, as for the structure and brilliancy of their flowers; which, according to the words of the generic character, ought to have six petals: but the present species appears to have but three petals, the three outer being entirely of the nature of a calyx; and effectually answering the purposes of one.

The tuberous-rooted Commelina is a native of Mexico, and in this country requires the treatment of a hot-house herbaceous plant. It is an old, but not common inhabitant of the British gardens; thrives well in rich earth, and is propagated by dividing the tubers of its root, when in a quiescent state; at which period much water is particularly inimical to it.

The genus Commelina can only be distinguished from Tradescantia when the flowers are open; but nevertheless differs very sufficiently, not only in having double the number of stamina, but more especially in the extraordinary cruciform nectaries.

Our drawing was made from very complete specimens communicated to us by the Hon. W. H. Irby, of Farnham Royal, Bucks.

Commelina tuberosa

PLATE CCCC.

EUCALYPTUS RESINIFERA.

Resinous Eucalyptus.

CLASS XII. ORDER I.

ICOSANDRIA MONOGYNIA. About Twenty Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus persistens truncatus, ante anthesin tectus *operculo* integerrimo deciduo. Corolla nulla. Capsula quadrilocularis, apice dehiscens polysperma.

EMPALEMENT above persistent truncated, before the flowering covered by an entire deciduous *lid.* Blossom none. Capsule four-celled, gaping at the point and many-seeded.

SPECIFIC CHARACTER.

EUCALYPTUS, operculo conico tereti coriaceo calyce duplo longiori, umbellis lateralibus solitariis. *Smith in Linn. Tr.* 3. *p.* 284.—*Willd. Sp. Pl.* 2. 977.

EUCALYPTUS, with a conical columnar leathery lid twice the length of the empalement, and lateral solitary umbels.

REFERENCE TO THE PLATE.

1. A bud in its infant state.
2. The calyptra or lid, when in perfection.
3. A chive magnified.
4. The pointal and seed-bud.

THIS species of the genus Eucalyptus, a genus well characterized from the singular operculum, which, instead of a corolla, defends the infantile fructification from external injuries, is a native of New South Wales; and was introduced, by seeds from that country, into our gardens, along with some other Eucalypti, several years ago; but has never flowered in Britain until the present summer, in Lady de Clifford's collection at Paddington, where our drawing was made in July last.

It is a shrub of considerable size, and handsome growth and foliage; and its younger shoots droop considerably, after the very elegant manner so much admired in the weeping willow.

But the most singular trait in the plant is its tardy and protracted mode of flowering. It has already shown flowers, which it will not expand until next July: they are scarce half the size they will then be, and have upon the tip of the large calyptra one of a far smaller size, but similar in shape, and which will soon fall off, as will also the large one, a little previous to the expansion of the stamina next July.

It requires a great deal of root-room, and rich earth; is a very hardy green-house plant, and has hitherto been propagated by imported seeds only.

Eucalyptus resinifera

PLATE CCCCI.

SERRATULA SPICATA.

Spiked-flowered Saw-wort.

CLASS XIX. ORDER I.

SYNGENESIA POLYGAMIA ÆQUALIS. Tips united. Æqual Polygamy.

ESSENTIAL GENERIC CHARACTER.

Calyx subcylindricus, imbricatus, muticus.	Empalement nearly cylindrical, imbricated, without awns.

SPECIFIC CHARACTER, &c.

Serratula, foliis linearibus, basi ciliatis, floribus sessilibus lateralibus spicatis, caule simplici. *Gmel. Syst. Nat.* 2. 1185.—*Ait. Hort. Kew.* 3. 138.	Serratula, with linear leaves, ciliated at the base, sessile lateral spiked flowers, and a simple stem.

REFERENCE TO THE PLATE.

1. A radical leaf.
2. The empalement spread open.
3. A floret.
4. The same, cut open.
5. The seed-bud and pointal.

The Serratula spicata is a native of Carolina; but has been cultivated in the gardens of this country ever since the year 1732; notwithstanding which it is by no means a frequent plant in collections; which I should conceive arises from its being rather difficult to increase.

Although a syngenesious plant, its root is of the tuberous kind; which is a peculiarity almost unparalleled in that extensive class. The flowering-stems shoot up late in spring, and are chiefly simple: they rise to the height of one or two feet, furnished with long linear leaves; the uppermost of which are gradually shortened, and they are all more or less ciliated near the base; but in this respect they are either liable to differ very considerably, or there are several varieties (perhaps species) of the plant. There is likewise another strikingly singular trait in the character of this Serratula: the flowers commence opening at the top of the spike first, and continue flowering downwards; instead of upwards, in the usual manner; which is a circumstance I cannot recollect having seen in any other plants; except Agave virginica and Allium descendens. Cultivators usually suppose the name of the last-mentioned plant to apply to its roots striking deep into the earth: but this we apprehend is an erroneous supposition; for it is clearly allusive to its perverted mode of flowering.

The spiked-flowered Saw-wort flowers in July, loves a light soil in the open air; and is propagated, although slowly, by parting its roots after the stems die down.

Gmelin queries, and with propriety, in his edition of *Systema Naturæ* above cited, whether S. spicata, and S. squarrosa, (another North American species,) are not generically distinct from the other Serratulæ.

Our drawing was made from plants in the collection of Lady de Clifford, at Paddington.

Erratula spicata

PLATE CCCCII.

CLEMATIS FLORIDA.

Large-flowered Virgin's Bower.

CLASS XIII. ORDER VI.

POLYANDRIA POLYGYNIA. Many Chives. Many Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX nullus. Petala quatuor, rarius quinque. Semina caudata.	EMPALEMENT none. Petals four, rarely five. Seeds tailed.

SPECIFIC CHARACTER.

CLEMATIS, foliis decompositis, foliolis binatis ternatisque, petalis ovatis. *Willd. Sp. Pl.* 2. 1287.	CLEMATIS, with decompound leaves, leaflets in twos and threes, and egg-shaped petals.

REFERENCE TO THE PLATE.

1. A petal.
2. The chives and pointals.
3. The pointals.

THE large-flowered Virgin's Bower was introduced into the English gardens, in the year 1776, from Japan; of which country it is a native; and possesses by much the largest and most showy flowers in the whole genus.

Although introduced so long since, it is not often met with. Our drawing was made from very fine plants in the collection of Messrs. Colvill, Nurserymen in the King's Road, in the month of July last; where they made an exceeding fine appearance.

Like many of the Japanese plants, it is found capable of resisting the severity of our ordinary winters, without receiving much injury.

It thrives best when trained against a wall or other fence, planted in rich soil; and is usually propagated by laying down the lowest branches in a careful manner; which take root in due time, and may then be safely separated from the mother plant.

PLATE CCCCIII.

IPOMÆA GRANDIFLORA.

Great-flowered Ipomœa.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX quinquefidus. Corolla infundibuliformis longa, limbo plicato quinquefido aut quinquedentato. Stigma capitatum. Capsula trilocularis polysperma. *Uster's Juss. Gen. Pl.* 149.

EMPALEMENT five-cleft. Blossom funnel-shaped long, with a five-cleft or five-dentated border. Summit headed. Capsule three-celled, with many seeds in each cell.

SPECIFIC CHARACTER, &c.

IPOMÆA, foliis cordatis acuminatis integerrimis, pedunculis subunifloris.

IPOMÆA, with heart-shaped acuminated very entire leaves, and chiefly one-flowered peduncles.

CONVOLVULUS *grandiflorus*, foliis cordatis ovatis obtusiusculis integerrimis, pedunculis subbifloris, calycibus coriaceis, caule petiolisque pubescentibus. *Linn. Supp. Pl.* 136.—*Willd. Sp. Pl.* 1. 859.

REFERENCE TO THE PLATE.

1. The empalement.
2. The tube of the flower cut open, to show the structure and insertion of the chives.
3. The pointal.
4. A capsule nearly ripe, cut horizontally and lifted up to show the seeds.

THIS magnificent species of Ipomæa (the Convolvulus grandiflorus of authors) was obligingly communicated to us in bloom in the month of September, by A. B. Lambert, Esq. who thinks that its root will only prove an annual one. If this indeed should eventually be the case, it will cause it to recede in a material manner from the Convolvulus grandiflorus as described in the Supplementum Plantarum, and consequently in Willdenow's Species Plantarum, which is there said to be an arborescent species: from C. grandiflorus it should also appear to differ, in its more pointed leaves and solitary peduncles; and likewise in having a stigma agreeing altogether in structure with the genus Ipomæa; which latter circumstance has occasioned us to separate it from Convolvulus, and transfer it to Ipomæa; because the conformation of the stigma in those extensive genera, often (but we fear not always) affords the most satisfactory characters for discrimination. All their species which we have examined, (and they have been very numerous,) possibly might be united into one genus, without committing much outrage against nature, or the natural affinities of her vegetable kingdom.

Ipomea grandiflora

PLATE CCCCIV.

MORÆA MINIATA.

Red-lead-coloured Moræa.

CLASS III. ORDER I.

TRIANDRIA MONOGYNIA. Three Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA hexapetala; petala tria interiora patentia; angustiora. Stigma trifidum.	BLOSSOM six-petalled, the three interior ones spreading Summit trifid.

SPECIFIC CHARACTER.

MORÆA, monadelphia, scapo tereti ramoso, foliis lineari-ensiformibus, caulinis spathaceis, petalis expansis sub-æqualibus ovalibus.	MORÆA, monadelphous, with a round branched scape, leaves linear-sword-shaped, stem ones spathaceous, and petals expanded nearly equal and oval.

REFERENCE TO THE PLATE.

1. The outer sheath of the flower.
2. The inner one.
3. The seed-bud, chives and pointal, as they stand in the flower.
4. The same magnified.
5. The monadelphous chives spread open.

IN vain have we turned over all the multifarious works of Jacquin, and many other publications, in search of information concerning this elegant plant: for our labour has not been rewarded with the east success. As a species, therefore, we conceive it to be entirely new; and in its generic characters, by no means destitute of botanical importance. With Moræa we have placed it, because it perhaps best agrees with that genus; yet cannot satisfactorily associate it with Moræa tricuspis (Vieussieuxia De la Roche) and its affinities. In its monadelphous stamina it approaches Sisyrinchium and Ferraria; and its flat red flowers remind us of the anomalous Ixia Chinensis*.

Our drawing was made from the Clapham collection, about the same time that Iris Pavonia of our 364th plate was drawn. It requires the same treatment as that splendid plant, and is a native of the same country: but we fear it is not at present to be found alive in Britain.

* This plant, after having been arranged under the several genera, Ixia, Moræa, and Ferraria, is now established as a new genus, by the name of Pardanthus, in the second number of Annals of Botany, just published.

Morea miniata

PLATE. CCCCV.

PRIMULA DENTIFLORA.

Toothed-flowered Primula.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX tubulosus quinquedentatus persistens. Corolla tubulosa quinqueloba, fauce perviâ. Capsula apice decemvalvis. *Uster's Juss. Gen. Pl.* 108.

EMPALEMENT tubulose five-toothed persistent. Blossom tubulose five-lobed, with a pervious throat. Capsule at the apex ten-valved.

SPECIFIC CHARACTER.

PRIMULA, foliis cordatis crenato-lobatis prærugosis, corollis acute dentatis.

PRIMULA, with heart-shaped crenatedly lobed very rough leaves, and sharply dentated flowers.

REFERENCE TO THE PLATE.

1. The empalement.
2. A blossom laid open, to show the insertion and structure of the chives.
3. The seed-bud and pointal.
4. The same magnified.

THE species of the favourite genus Primula which we have here represented, is a very elegant one; and greatly resembles P. cortusifolia, which is figured on our 7th plate; but differs from it in the extraordinary denticulations of the flowers; which we have been assured are a constant and permanent character of the plant, and, if so, affords an excellent and decisive mark of specific distinction, and at the same time a trivial name of undeniable goodness. We have not been able to ascertain with any kind of certainty its native place of growth. It was communicated to us in bloom in the month of September last, from the select collection of Lady de Clifford, at Paddington, and is found to be a hardy plant, and to succeed with the treatment of the other Primulæ; that is, as an alpine plant in bog earth, and a small portion of loam; and protected in summer from the mid-day and afternoon, but not the morning or evening sun. It is propagated by parting the roots in autumn; and as a new and at the same time beautiful Primula, it cannot fail to be acceptable to all our subscribers.

Primula dentiflora

PLATE CCCCVI.

APONOGETON MONOSTACHYON.

Simple-spiked Aponogeton.

CLASS XI. ORDER IV.

DODECANDRIA TETRAGYNIA. Twelve Chives. Four Pointals.

ESSENTIAL GENERIC CHARACTER.

AMENTUM e squamis compositum. Calyx nullus. Corolla nulla. Capsulæ 4, trispermæ.	CATKIN composed of scales. Empalement none. Blossom none. Capsules 4, three-seeded.

SPECIFIC CHARACTER, &c.

APONOGETON, spicâ simplici, foliis cordato-ovalibus. *Willd. Sp. Pl.* 2. 927.	APONOGETON, with a simple spike, and heart-oval shaped leaves.

REFERENCE TO THE PLATE.

1. The chives detached.
2. The pointals detached.
3. The same magnified.

FOUR species only of this singular genus have hitherto been enumerated by authors: viz. the present one from the East Indies; crispum, a native of Ceylon; and angustifolium and distachyon, from the Cape of Good Hope; the last of which is the most showy, and is figured on our 290th plate.

They are all water plants, and could no more thrive with their roots and natant leaves out of that element than an Aloe or Stapelia could prosper in it: they are therefore, along with other tropical aquatics, cultivated in our hot-houses in troughs or cisterns of rich earth and clear water; in which, consociated with the majestic Nymphææ, the stately Thalia, and the more humble but not less interesting Menyanthes indica, they produce a most fragrant and desirable appearance; that perhaps is indebted for some of its charms to the fine contrast formed by the terrestrial exotics which surround them.

In a collection of tropical plants, where a few cisterns of aquatics are judiciously interspersed, the oppressive heat of the stove in which they grow, is as it were delusively alleviated, "in the mind's eye," by the simple, yet cooling sight of the little pools of water in which they float. Few are the number of observers who contemplate them without imbibing pleasure. This unquestionably arises from the strong but agreeable contrast that is exhibited to the eye, by the happy junction of the productions of the waters with those of the earth. They are vegetables of widely different orders—productions of very different natures—and inhabitants of elements diametrically opposite.

The simple-spiked Aponogeton produces roundish tubers in various parts of its shoots; by the transplantation of which the plant is readily and speedily propagated. Our drawing of it was made in July last, at J. Vere's, Esq. Kensington Gore, in whose collection it thrives very well. We have not as yet seen it in any other.

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Aponogeton monostachyon

PLATE CCCCVII.

CALENDULA DENTATA.

Toothed-leaved Marygold.

CLASS XIX. ORDER IV.

SYNGENESIA POLYGAMIA NECESSARIA. Tips united. Necessary Polygamy.

ESSENTIAL GENERIC CHARACTER.

RECEPTACULUM nudum. Pappus nullus. Calyx polyphyllus, subæqualis. Semina disci utplurimum membranacea.	RECEPTACLE naked. Pappus none. Empalement many-leaved, nearly equal. The seeds of the disk chiefly membranous.

SPECIFIC CHARACTER, &c.

CALENDULA, foliis alternis linearibus remote et acute dentatis; caule fruticoso decumbente.	MARYGOLD, with alternate linear remotely and acutely dentated leaves, and a decumbent shrubby stem.

Calendula dentata. *Donn's Hort. Cantab. ed.* 3. 163.

REFERENCE TO THE PLATE.

1. The empalement.
2. A floret of the circumference.
3. A floret of the disk.
4. The same laid open and magnified, to show the situation of the chives.
5. The pointal, with the summit detached and magnified.

ALTHOUGH this species of Calendula appears to have been introduced to the British gardens so long since as the year 1790, from the Cape of Good Hope, its native country; I do not find it enumerated either in Mr. Aiton's Hortus Kewensis or Gmelin's edition of Systema Naturæ; but it will in all probability be taken up in Willdenow's Species Plantarum, when he arrives at that part of it which is to include the genus Calendula.

It is well known in the gardens by the applicable name of dentata, but is not a common plant,—although, from the beauty and size of its flowers, highly worthy of general cultivation: its branches are weak, yet shrubby; and require support.

It is a green-house plant, and is propagated by cuttings in the usual way. Our drawing was made from the Clapham collection in July last.

Calendula dentata

PLATE CCCCVIII.

DAHLIA PINNATA.

Pinnated Dahlia.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX duplex. Corolla radiata, radiis lacinias calycis numero æquantibus: corollulæ pedicellatæ. Receptaculum paleaceum. Stigmata plumosa.

EMPALEMENT double. Blossom radiated, with the rays equalling in number the segments of the empalement: the florets pedicelled. Receptacle chaffy. Tips plumose.

SPECIFIC CHARACTER, &c.

DAHLIA, foliis oppositis, impari-pinnatis; pinnulis quinque, ovatis, crenato-dentatis. *Cav. Ic.* 1. 57. *tab.* 80.

DAHLIA, with leaves opposite, pinnated with an odd one; the pinnules five, ovate, and notch-dentated.

REFERENCE TO THE PLATE.

1. A young flower with the peduncle and empalement.
2. One of the radiating florets with its pedicel.
3. A floret of the disk.
4. The same spread open, to show the chives and pointal.
5. The pointal detached, with the summit magnified.

THE genus Dahlia was first established by the celebrated botanist Cavanilles *, (in honour of Andrew Dahl, a Swedish botanist, not Dale an Englishman,) for three lofty, thick-rooted, perennial plants, natives of the distant regions of Peru; but all of which we have had the recent pleasure of seeing alive in the overflowing gardens of our own happy country. They are extremely desirable and showy plants; and none of them more so than the present one; which was raised from seeds sent from Madrid last spring, by the Right Hon. Lady Holland, and flowered last September and October, in the open ground, in her Ladyship's collection at Holland House, Kensington; where our drawing was lately made. It has acquired the stately height of near eight feet, with a circumference of three; and makes indeed a truly specious appearance: but we do not expect it will ripen its seeds; the season being too far advanced to encourage any reasonable hope of that nature.

The best mode of propagation should seem to be that of dividing its somewhat tuberous roots, after the stems die down. As to treatment, we see no valid reason why it, and both the other Dahliæ, (the coccinea and rosea,) should not be treated as hardy herbaceous plants; placed in rich earth and a warm situation. But as they are both rare and valuable, it may at present be safer to consider them as greenhouse plants, keeping them in very large pots and well watered, until their stems show symptoms of dying down; when moisture must be administered with a sparing hand.

There are considerable reasons for thinking that the pinnated Dahlia will hereafter be raised with double flowers, because the figure in Cavanilles' Icones, above cited, represents them nearly semi-double; and the doubling of radiated syngenesious plants is well known to horticulturists to be a circumstance of pretty frequent occurrence.

* The public have now to regret the loss of this valuable botanist; they are deprived of him: he died in May last at Madrid, aged 59.

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PLATE CCCCIX.

PROTEA SCOLYMUS.

Smooth-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA quadrifida sive quadripetala. Antheræ lineares insertæ petalis infra apicem. Calyx proprius nullus. Nux unisperma supera.

BLOSSOM four-cleft or four-petaled. Tips linear, inserted on the petals below the apex. Empalement proper, none. Nut one-seeded above.

SPECIFIC CHARACTER, &c.

PROTEA, foliis lanceolatis acutis capituloque terminali rotundo glabris.

Protea Scolymus. *Willd. Sp. Pl.* 1. 522.—*Schrad. Sert. Hann. tab.* 20.—*Ait. Hort. Kew.* 1. 127.

PROTEA, with lance-shaped acute smooth leaves and a round terminal smooth head of flowers.

LEUCODENDRON (*Scolymocephalum*) foliis lanceolatis, floribus subrotundis, caule fruticoso ramoso. *Linn. Sp. Pl.* 2. 153.

LEPIDOCARPODENDRON acaulon, ramis numerosis e terra excrescens, calyce floris immaturo extus e rubro et flavo variegato, intus flavo. *Boerh. Lugb.* 2. *p.* 192. *tab.* 192.

SCOLYMOCEPHALUS africanus, fruticis æthiopici coniferi Breynii foliis, capite majori squamato. *Raj. H.* 3. 10.

REFERENCE TO THE PLATE.

1. A floret detached.
2. A petal with its tip magnified.
3. The seed-bud and pointal.

THE Protea Scolymus grows spontaneously on the Tiger mountain at the Cape of Good Hope; but has long been an inhabitant of European conservatories, although a rare one. It was well known to several of the old botanists, who appear to have differed much concerning the generical appellations which they thought proper to bestow upon it; as will appear on consulting the synonyms above. They made several genera of Proteæ; but the botanists of later times have melted them all down (we fear injudiciously) into one great genus: and Schrader has even added Lambertia to Protea; and figured it in his Sertum Hannoverianum, under the name of Protea nectarina; thereby alluding to the sweet juice which abounds in the tubes of its flowers:—melliflua would have been a still more expressive term. The smooth-leaved Protea requires the same treatment as the rest of the genus, and is a very fine species, producing its flowers in May and June. Our figure was taken at the Clapham collection.

Protea Scolymus

PLATE CCCCX.

CYNANCHUM UNDATUM.

Waved Cynanchum.

CLASS V. ORDER I.

PENTANDRIA DIGYNIA. Five Chives. Two Pointals.

ESSENTIAL GENERIC CHARACTER.

CONTORTA. Nectarium cylindricum, quinquedentatum.	CONTORTED. Honey-cup cylindrical, five-toothed.

SPECIFIC CHARACTER.

CYNANCHUM, caule volubili, foliis cordatis oblongis obtusis cum acumine undatisque, umbellis axillaribus subproliferis.	CYNANCHUM, with a twining stem, heart-shaped oblong blunt leaves, but with a sudden point, and waved, axillary somewhat proliferous umbels.

REFERENCE TO THE PLATE.

1. The empalement.
2. The blossom spread open.
3. The outer scale of the honey-cup.
4. The parts of fructification magnified.
5. The inner scale of the honey-cup.
6. The outside of the same.
7. The seed-bud, shaft, summit and chives magnified.

THE Waved Cynanchum is more remarkable for novelty than beauty; yet, as an addition to our volubilous exotics, it possesses sufficient elegance to render it worthy our attention: especially as climbing plants have of late years become quite fashionable in most of the best conservatories in the vicinity of London.

As a species, we conceive it to be perfectly nondescript, although it should seem to possess several characters in common with Cynanchum reticulatum, and C. undulatum of Willdenow, &c.; both of which are known to us, but are described as having ovate, or oblong, not heart-shaped leaves. C. reticulatum is also a native of the same country, the East Indies; from whence seeds of the undatum were brought in the year 1803 by Captain Thomas Hardwicke; and were raised in the collection of the Marquis of Blandford, at White Knights, Berks, where they flowered last July; when that nobleman obligingly communicated to us the specimen from which the annexed figure was made.

The Waved Cynanchum is a hot-house plant, and requires nearly the same treatment as Pergularia minor of our 184th plate.

Cynanchum undatum

PLATE CCCCXI.

PSORALEA SPICATA.

Spiked-flowered Psoralea.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Two Brotherhoods. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Calyx longitudine leguminis. Stamina diadelpha. Legumen monospermum subrostratum evalve.	Empalement the length of the pod. Chives diadelphous. Pod one-seeded roundish and valveless.

SPECIFIC CHARACTER, &c.

Psoralea, foliolis obovatis recurvato-mucronatis subtus punctatis, spica terminali oblonga. - *Willd. Sp. Pl.* 3. 1345.	Psoralea, with leaflets inversely egg-shaped, recurvedly mucronated and dotted beneath, and an oblong terminal spike of flowers.

REFERENCE TO THE PLATE.

1 The empalement.
2. A standard.
3. One of the wings.
4. The keel.
5. The chives and pointal.
6. The seed-bud and pointal.

The spiked-flowered Psoralea is a shrubby plant, and rises to the height of a foot or two; producing its spikes of flowers in the months of July and August, at the ends of its branches. It is a native of the Cape of Good Hope, and in this country is found to succeed very well in any green-house which has a flue to keep out the frost: and is propagated by seeds, and also by cuttings if carefully managed. Although not a very newly-introduced plant, it is certainly not a frequent one in our gardens; indeed we do not recollect having ever seen it in any collection, except the Nursery of Messrs. Whitley and Brames, Old Brompton; where our drawing was made some time since; and where it was considered and treated as a new species: which, however, as appears by our synonym above given, is not the case.

Pl. 41

Psoralea spicata

PLATE CCCCXII.

CALENDULA VISCOSA.

Viscous Marygold.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA NECESSARIA. Tips united. Necessary Polygamy.

ESSENTIAL GENERIC CHARACTER.

RECEPTACULUM nudum. Pappus nullus. Calyx polyphyllus, subæqualis. Semina disci utplurimum membranacea.

RECEPTACLE naked. Pappus none. Empalement many-leaved, nearly equal. The seeds of the disk chiefly membranous.

SPECIFIC CHARACTER.

CALENDULA, viscosa, foliis alternis linearicuneatis pinnatifido-dentatis, calycibus lucidis tomentoso-ciliatis, caule fruticoso debili.

MARYGOLD, viscous, with alternate linear-cuneated pinnatifid-toothed leaves, shining tomentosely-ciliated empalements, and a weak shrubby stem.

REFERENCE TO THE PLATE.

1. The empalement.
2. A floret of the ray.
3. A floret of the disk.
4. The same magnified.
5. The corolla spread open and magnified.
6. The seed-bud and pointal.

THE figure annexed represents a new and very ornamental species of the genus Calendula, which we lately discovered flowering beautifully, amongst many other rare plants in the charming collection of exotics at George Hibbert's, esq. Clapham; where it was lately raised from seeds, sent to him, we believe, from the Cape of Good Hope, of which country we understand it is a native.

It is a shrubby species, and possesses much of the growth and habit of Calendula dentata of our last number; and indeed in most things, except its considerable viscosity and the colour of its flowers, exhibits a very great similitude to that species; and will be found to succeed with the same treatment and mode of propagation; but is in every respect a much more desirable plant.

Calendula viscosa

PLATE CCCCXIII.

GERANIUM HYMENODES.

Ternate-leaved Geranium.

CLASS XVI. ORDER IV.

MONADELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus rostratus pentacoccus.	ONE POINTAL. Five summits. Fruit beaked, five berries.

SPECIFIC CHARACTER, &c.

GERANIUM, pedunculis multifloris, foliis obtusis inciso-dentatis, inferioribus ternatis, superioribus trilobis, caule erecto.	GERANIUM, with many-flowered peduncles, obtuse gash-dentated leaves, the inferior ones ternate, the superior three-lobed, and an erect stem.

GERANIUM (*trifolium*) caule herbaceo crasso ramoso, foliis radicalibus ternatis lobatis, caulinis oppositis simplicibus lobatis, petalis venosis, superioribus maculatis. *Cav. Diss.* 4. *p.* 223. *tab.* 97. *fig.* 3.

ERODIUM hymenodes. *L'Herit. Geran. tab.* 4.

ERODIUM hymenodes. *Willd. Spec. Pl.* 3. 635.

REFERENCE TO THE PLATE.

1. The empalement and parts of fructification.
2. The seed-bud, chives and pointal magnified.
3. The seed-bud and pointals.
4. The same magnified.

THE ternate-leaved Geranium belongs to L'Heritier's genus Erodium. It is a native of mountainous, rocky situations, in the northern parts of Africa; but has been cultivated in most of our best collections of exotics several seasons; yet is not so frequently met with as it deserves to be, on account of the unusual delicacy in the veining and spotting of its flowers; which, from their size and number, make a good appearance; and are produced in succession most part of the year. The plant itself is of very humble, scarcely shrubby growth; yet rises somewhat higher than the real tuberous species; to which, however, in its contracted, thickened stems, it betrays a considerable affinity. It is propagated readily by seeds, and likewise by cuttings; and stands out in the open ground in mild winters uninjured, although it is generally killed in severe ones; which renders it necessary to preserve a supply of it in the conservatory.

Geranium Hymenoides

PLATE CCCCXIV.

CRASSULA OBLIQUA.

Oblique-leaved Crassula.

CLASS V. ORDER V.

PENTANDRIA PENTAGYNIA. Five Chives. Five Pointals.

ESSENTIAL GENERIC CHARACTER.

CALYX pentaphyllus. Petala quinque. Squamæ quinque nectariferæ ad basin germinis.	EMPALEMENT five-leaved. Petals five. Five honey-bearing pores at the base of the germ.

SPECIFIC CHARACTER, &c.

CRASSULA, foliis ovatis obliquis integerrimis acutis distinctis, margine cartilagineis. *Willd. Sp. Pl.* 1. 1553.—*Ait. Hort. Kew.* 1. 395.	CRASSULA, with leaves egg-shaped oblique very entire acute distinct, and cartilaginous on the margin.

REFERENCE TO THE PLATE.

1. A flower with its empalement.
2. The seed-bud and pointals.
3. A detached pointal magnified.

ALTHOUGH the genus Crassula is a very extensive one, and possesses many species which are remarkable either for beauty, singularity, or fragrance; the one which we have here the satisfaction of illustrating is, we think, by far the most ornamental; and is at the same time both a stately and a singular plant. It is very succulent, and requires the heat of the hot-house to make it bloom; but prospers best, like all other succulent plants of the more tender kind, on the shelves of a dry stove. It is a native of the Cape of Good Hope, and is propagated with facility by cuttings; prefers a light loamy soil, and a dry treatment; and produces its large bunches of flowers late in the year; which are very showy and of considerable duration, particularly if removed into the green-house while in bloom, and at that time more liberally watered.

The oblique-leaved Crassula is an old inhabitant of our gardens, but not a frequent one. Our drawing was made from a fine specimen obligingly sent us by Thomas Evans, esq. from his fine collection at Stepney, last August.

Corabula elegans

PLATE CCCCXV.

CANTUA CORONOPIFOLIA.

Coronopus-leaved Cantua.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX 3—5-fidus. Corolla infundibuliformis. Stigma trifidum. Capsula trilocularis, trivalvis, polysperma. Semina alata.

EMPALEMENT from three- to five-cleft. Blossom funnel-shaped. Summit trifid. Capsule three-celled, three-valved, many-seeded. The seeds winged.

SPECIFIC CHARACTER, &c.

CANTUA, floribus terminalibus, staminibus longitudine corollæ, foliis pinnatifidis.

CANTUA, with terminal flowers, chives the length of the blossom, and feather-cleft leaves.

CANTUA (coronopifolia). *Willd. Sp. Pl.* 1. 879.

POLEMONIUM (rubrum), foliis pinnatifidis linearibus, floribus racemosis pendulis. *Linn. Sp. Pl. ed.* 3. *p.* 231.

IPOMEA (rubra). *Linn. Syst. Veg.* 171.

IPOMOPSIS (elegans), minutim pubescens, foliis lineari-pinnatifidis. *Mich. Fl. Boreali-Americ.* 1. 142.

QUAMOCLIT pinnatum erectum, floribus in thyrsum digestis. *Dill. Hort. Elth.* 321. *tab.* 241. *fig.* 312.

REFERENCE TO THE PLATE.

1 The empalement.
2. The blossom spread open, with the chives attached.
4. The seed-bud and pointal, with the summit magnified.

ALTHOUGH the Coronopus-leaved Cantua was cultivated in Sherard's celebrated garden at Eltham, in the time of Dillenius, and is figured by him, in the *Hort. Elth.* above cited, as a species of *Quamoclit*, it has been an entire stranger to our modern gardens until very lately; having no doubt long since perished in all the old collections.

Who the reintroducer of this very elegant plant is, we have yet to learn: but the beautiful specimen here figured, was obligingly communicated to us by the Marquis of Blandford, from White Knights, Berks, about the end of November last.

It is a native of Carolina, and sufficiently hardy, we should think, to resist the cold of our ordinary winters: its root is herbaceous, and the plant admits of increase by parting the same, in spring or autumn.

Writers have differed in a very remarkable manner concerning the Genus to which they should refer this plant; and Linnæus himself seems to have been as undetermined as any of them concerning it; having at different times given it as a *Polemonium*, and an *Ipomea*; as will appear among our synonyms above. Michaux has called it *Ipomopsis*: and another foreign writer, whose work we have not got, has given it the appellation of *Noothea Pulchella*: but Willdenow has added it to the genus *Cantua*, with which we conceive, in our humble opinion, it sufficiently accords; and have therefore ventured to follow him in his arrangement of it.

Pl. 15

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Cantua Coronopusfolia

PLATE CCCCXVI.

SALVIA CHAMÆDRIFOLIA.

Germander-leaved Sage.

CLASS II. ORDER I.

DIANDRIA MONOGYNIA. Two Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

COROLLA inæqualis. Filamenta tranverse pedicello affixa.	BLOSSOM unequal. Chives affixed transversely to a pedicel.

SPECIFIC CHARACTER, &c.

SALVIA, foliis ovalibus rugosis obsolete crenatis, verticillis terminalibus nudis quadrifloris, staminibus corolla brevioribus.	SAGE, with oval rough obsoletely notched leaves, terminal naked four-flowered whorls, and chives shorter than the blossom.

SALVIA Chamædrifolia. *Donn's Hort. Cantab. p. 7.*

REFERENCE TO THE PLATE.

1. The empalement.
2. The blossom with the chives attached.
3. The seed-bud and pointal, with the summit magnified.

OUR drawing was made from plants in the Hibbertian collection at Clapham last autumn: but we have also seen this Sage in other places; particularly at Cambridge; and know it to be the Salvia Chamædrifolia of the Hortus Cantabrigiensis ed. 3.: but we do not find that name in any other publication within our reach.

Mr. Donn marks it as a green-house perennial, and gives Spain as its native country, but with a note of interrogation; and adds that it flowers in July and August; and that it was introduced into our gardens in the year 1798.

We believe that A. B. Lambert, Esq. was the first introducer of it, and that gentleman thinks he received the seeds of it from Spain. The first time of our seeing it was at J. Vere's, Esq. in the autumn of 1802, where it was cultivated as a green-house shrub, and by the name of S. citrina, a name that well expresses the charming odour of its leaves when gently rubbed; which not a little resembles the pleasing, well-known scent of Lemon Thyme.

It is propagated by cuttings in the usual way: its stem and branches are very slender, but shrubby, and arise to the height of two or three feet. The flowers are terminal, large, showy, and possess a beautiful colour of the deepest blue.

Pl. 416

Salvia Chamadrifolia

PLATE CCCCXVII.

CROTOLARIA PULCHELLA.

Ternate Large-flowered Crotolaria.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Two Brotherhoods. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

LEGUMEN turgidum, inflatum, pedicellatum. Filamenta connata cum fissura dorsali.	POD turgid, inflated, pedicelled. Chives conjoined with a dorsal fissure.

SPECIFIC CHARACTER.

CROTOLARIA, frutescens, ramulis teretibus sericeis, foliis ternatis, foliolis linearilanceolatis acutis petiolis sesquilongioribus, subtus subpilosis.	CROTOLARIA, shrubby, with cylindrical silky branches, and ternate leaves, with the leaflets linear-lanced acute-once, and-an-half the length of the foot-stalks, and somewhat hairy beneath.

REFERENCE TO THE PLATE.

1. The empalement.
2. The standard.
3. One of the wings.
4. The keel.
5. The chives.
6. The seed-bud and pointal.

THE species of Crotolaria here represented, may perhaps be the "C. (pilosa) foliis ternatis pilosis, foliolis mucronatis, floribus terminalibus," of Thunberg's Prodromus: but from so insufficient a character we have not ventured to determine it to be that plant; having rather chosen to give it as a new species by the name of Pulchella; which it well deserves.

It is a green-house plant, a native we understand of the Cape; and arises with a straight, but little branched, woody stem, to the height of about 3 feet: the branches are cylindrical and silky: the leaves alternate and ternate, inclining to hoary, with pubescent and channelled foot-stalks: the leaflets are lance-shaped, or linear-lanced, once and an half, or sometimes twice the length of their common foot-stalk, and furnished beneath with minute, close-pressed hairs: the flowers are in a terminal racemus, large, yellow, and showy; and are produced in the month of July.

Hitherto we have seen this plant only at the Nursery of Messrs. Colvill, in the King's Road, where our drawing was made. In favourable seasons the plant will probably ripen its seeds in this country: and at other times we have no doubt of its being capable of propagation by cuttings in the usual way; although we do not know that this has yet actually been done.

Crotolaria pulchella

PLATE CCCCXVIII.

GENTIANA CATESBÆI.

Catesby's Gentian.

CLASS V. ORDER II.

ESSENTIAL GENERIC CHARACTER.

COROLLA monopetala. Capsula bivalvis, unilocularis; receptaculis duobus longitudinalibus.

BLOSSOM one-petalled. Capsule two-valved, one-celled; with two longitudinal receptacles.

SPECIFIC CHARACTER, &c.

GENTIANA, foliis remotis oppositis ternatisque, corollis verticillatis ventricosis decemfidis, laciniis alternis inæqualiter bifidis lacerisque; calycibus minute ciliatis.

GENTIAN, with remote opposite and ternate leaves, whorled ten-cleft bellied flowers, with their alternate segments unequally bifid and torn; and minutely ciliated empalements.

GENTIANA (*Catesbæi*), corollis campanulatis ventricosis extus cæruleis, foliis lanceolatis remotis. *Walt. Fl. Carolin.* 109.

GENTIANA (*Saponaria*), corollis quinquefidis campanulatis ventricosis verticillatis, foliis ovato-lanceolatis trinerviis. *Willd. Sp. Pl.* 1. 1338.

REFERENCE TO THE PLATE.

1. The empalement.
2. The blossom spread open.
3. The pointal.

THE beautiful species of Gentiana here represented, does not appear to be noticed either in Willdenow's edition of Species Plantarum, or the Hortus Kewensis of Mr. Aiton; except by the former of these authors, as being synonymous with G. Saponaria; from which as a species we conceive it distinct: neither do we find it enumerated in Mr. Donn's Hortus Cantabrigiensis: but it is described by Walter in his Flora Caroliniana, under the name of Catesbæi; and is known in several of the principal gardens in the neighbourhood of London by that appellation; which we have therefore thought it more eligible to adopt, than run any risk of occasioning confusion by applying a new one.

The plant is perennial and herbaceous, a native of Carolina, and is propagated by parting its roots in autumn, or early spring; but requires a moist sheltered situation, and peat earth in the open air, to make it flourish.

It rises with several stems to the height of a foot or upwards: the leaves are opposite, or in threes, remote, lanceolate, stem-clasping, and obscurely three-nerved, with scabrous margins, occasioned by minute, upwardly-directed serrulations, which at the base of the leaf are decurrent, and form four or six roughened lines on the stem: the flowers are irregularly whorled; but the uppermost whorl is by much the largest; each blossom is of a rich deep purple colour, ventricose, and opens very little at the mouth, where it is divided into ten incurving segments, every other of which is of a much paler colour than the rest, broader, unequally bifid, and minutely lacerated: the empalement is five-cleft, and its segments are linear-lance-shaped, with minutely ciliated edges, after the manner of the edges of the leaves.

The living specimen from which our figures were made, was obligingly communicated to us by the Hon. Mr. Irby, of Farnham Royal, Bucks.

Pl. 40.

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Gentiana Catesbei

PLATE CCCCXIX.

GENISTA LUSITANICA.

Portugal Genista.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Two Brotherhoods. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

CALYX bilabiatus: 2—3 dentibus, binis superioribus brevissimis. Vexillum oblongum a pistillo staminibusque deorsum reflexum.

EMPALEMENT two-lipped: with 2—3 teeth, the two uppermost very short. The standard oblong, and reflexed downwards from the chives and pointal.

SPECIFIC CHARACTER, &c.

GENISTA, caule aphyllo, spinis decussatis. *Willd. Sp. Pl.* 2. 946.—*Ait. Hort. Kew.* 2. 16.

GENISTA, with a leafless stem, and decussated spines.

SCORPIUS secundus. *Clus. Hist.* 1. *p.* 107.

REFERENCE TO THE PLATE.

1. The empalement.
2. The standard.
3. One of the wings.
4. The keel.
5. The chives.
6. The seed-bud and pointal.
7. The same magnified.

THE Portugal Genista is a very spiny, and almost leafless shrub, of bushy growth; and although very well known to most of the old Botanists, does not appear to have been cultivated in the British gardens until the year 1771; when, according to Mr. Aiton's Hortus Kewensis, it was introduced by Mrs. Primmet. It is a native of Portugal and Spain, but is sufficiently hardy to resist the cold of our ordinary winters, if planted in a sheltered situation: yet is extremely liable to be injured, or even destroyed, in those which take place with rigour and severity: but as it very frequently produces good seeds, a supply of it is not difficult to be kept up that way. The best time of sowing them is spring, and they will require some slight protection from frost while young.

The plant blooms freely from March till May, and when decorated with its golden flowers, makes a very ornamental appearance in the shrubbery; in which, although it has been so long in cultivation, we cannot help regretting that it but seldom occurs: and we venture to recommend it along with G. germanica (a closely allied species) to the further attention of our cultivating friends.

Like many other shrubby leguminous plants, this Genista is averse to being frequently transplanted; and never suffers the operation of removal with impunity. Let that business therefore, when necessary, be performed with all possible diligence and care. Our figure was taken from plants in the Clapham collection.

Genista lusitanica

PLATE CCCCXX.

GERANIUM FLORIBUNDUM.

Tuberous Many-flowered Geranium.

CLASS XVI. ORDER IV.

MONADELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus rostratus pentacoccus.

ONE POINTAL. Five summits. Fruit beaked, five berries.

SPECIFIC CHARACTER.

GERANIUM, tuberosum, pinnis foliorum oppositis bipartitis, laciniis ellipticis; scapis numerosis ramosis, petalis clavato-linearibus.

GERANIUM, tuberous, with the pinnæ of the leaves opposite and two-parted, with their segments elliptical; numerous branched flower-stalks, and clavatedly-linear petals.

REFERENCE TO THE PLATE.

1. The empalement.
2. The seed-bud, chives, and pointal.
3. The chives spread open.
4. The seed-bud and pointal.
5. The same magnified.

GERANIUM floribundum appears to be not only a nondescript species of the Erodium family of this extensive tribe of plants; but at the same time, a new and brilliant one. Few in number are the species which equal it in beauty: and still more rare are those which can be allowed to surpass it.

It is of extremely humble growth, and its roots are tuberous: from the crowns of which it throws up, in the early part of summer, a considerable number of flowering stems, each adorned with many flowers; whence our specific name of floribundum.

It is a native of the Cape of Good Hope, and prospers with the same treatment as the other dwarf Geraniums; and is propagated like them, by carefully dividing the tubers of its roots.

Our figure was made from the Clapham collection, which it is well known abounds more in this description of plants, than any other existing in this country.

1 2 3 4 5

Geranium floribundum

PLATE CCCCXXI.

RENEALMIA CALCARATA.

Upright-flowering Renealmia.

CLASS I. ORDER I.

MONANDRIA MONOGYNIA. One Chive. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX superus, monophyllus, in 2 sive 3 dentes irregulares rumpens. Corolla trifida. Nectarium oblongum. Anthera sessilis, nectario opposita. Bacca carnosa, trilocularis, profunde sulcata, et hirta. Semina plurima, alte truncata, arillo membranaceo niveo adpresso.

EMPALEMENT above the fruit, one-leafed, breaking into 2 or 3 irregular teeth. Blossom trifid. Nectary oblong. Chive sessile, opposite to the nectary. Berry fleshy, three-celled, profoundly sulcated, and hairy. Seeds many, deeply truncated, and furnished with a membranous, close-pressed, snow-coloured exterior skin.

SPECIFIC CHARACTER.

RENEALMIA foliis lanceolato-ensiformibus, racemo terminali erecto.

RENEALMIA with lance-sword-shaped leaves, and an erect terminal racemus of flowers.

REFERENCE TO THE PLATE.

1. The spathe.
2. A blossom divested of the chive and honey-cup.
3. The honey-cup.
4. The sheath which crowns the seed-bud.
5. The chive, pointal, and seed-bud.
6. The same without its chive.
7. A transverse section of the seed-bud magnified.

THE new and elegant plant here figured was obligingly communicated to us in September last by A. B. Lambert Esq. who informs us that it had grown vigorously to the height of about three feet in the bark-bed of his hot-house, without showing flowers; but that, on being removed from the tan and placed upon the flue, it soon produced those which we have here delineated; whence it is probable that the check to its growth, occasioned by the mere change of situation, was the cause of its blooming, as in other collections it has not hitherto done it. Mr. L. likewise informs us that its native country is Coromandel, and that it is intended for publication by Dr. Roxburgh under the name of Amomum calcaratum; and showed us a drawing of it, so named, copied from one that was made in the East Indies from a native specimen, and which represents the plant somewhat slenderer and less upright than the individual we have here depicted.

Whoever will carefully investigate and compare our dissected figures of this plant with those which are given with Renealmia nutans on our 360th plate, will not only find that they precisely agree with each other (as much as two distinct species of plants can do), but that both of them very sufficiently correspond with the essential characters of the genus Renealmia: yet both are, no doubt, specifically distinct from Renealmia exaltata; wherefore we have not hesitated to withdraw the present plant from the genus Amomum, from which, independent of its widely different mode of flowering, we believe it to be generically distinct. Neither are the above-mentioned all the species of Renealmia we have a knowledge of; for even in the British gardens (exclusive of those which have not yet been introduced to us alive) we are already acquainted with at least three more. But how far some of these plants are distinct from the four diandrous Globbæ enumerated by Willdenow, and from Schrader's Zerumbet speciosum, which is a true Renealmia, we are not at present prepared to determine; yet cannot help remarking that the last-mentioned plant should seem to resemble the Globba Japonica of Thunberg;—that our present subject may resemble G. Marantina;—that G. nutans greatly resembles Renealmia nutans; and that at least one of the figures cited by Willdenow for the former in Rumphius, is absolutely the same as R. nutans:—and, lastly, that R. exaltata of Linn. Supp. Pl. possesses, in a very striking and remarkable manner, the extraordinary habit of the remaining Globba uviformis.

As to culture, these are all stove plants, and in this country require the assistance of the tan-bed to make them flourish. Rich earth and great plenty of pot-room are likewise requisite, and also a large portion of water when they are vegetating briskly, but less when they are almost at a stand,—which is sometimes the case,—although they are never perfectly quiescent, as is common in the neighbouring genus Amomum. They are propagated easily by parting their perennial roots.

Renealmia calcarata.

PLATE CCCCXXII.

CROTOLARIA JUNCEA.

Rushy-stalked Crotolaria.

CLASS XVII. ORDER IV.

DIADELPHIA DECANDRIA. Two Brotherhoods. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

Legumen turgidum, inflatum, pedicellatum. Filamenta connata, cum fissura dorsali.	Pod turgid, inflated, pedicelled. Chives conjoined, with a dorsal fissure.

SPECIFIC CHARACTER, &c.

Crotolaria, foliis simplicibus lanceolatis subsessilibus, leguminibus glabris, racemo terminali, caule sulcato. *Willd. Sp. Pl.* 3. 974.—*Curt. Bot. Mag.* 490.	Crotolaria, with simple lanceolate somewhat sessile leaves, smooth pods, a terminal bunch of flowers, and a furrowed stem.

REFERENCE TO THE PLATE.

1. The empalement.
2. The standard.
3. One of the wings.
4. The keel.
5. The chives.
6. The same spread open.
7. The seed-bud and pointal.

The species of Crotólaria here represented is a native of Malabar and the coast of Coromandel. It was obligingly sent us in bloom last August by the Hon. Mr. Irby, of Farnham Royal, Bucks, and was raised by him from East Indian seeds. Its root is annual; and the plant, in consequence of it, admits of increase by seeds only, which should be sown early on a hot-bed, with the most tender annuals, and the young plants when large enough should be transplanted into separate pots of rich earth; and after they have sufficiently recovered the effects of removal, they should be taken into the hot-house, the assistance of which is requisite to bring them to maturity. They rise with slender and rather rushy stems, which are but slightly branched, to the height of two or three feet, and make a fine appearance when in flower; but they are, like many other tender leguminous plants, very subject to the annoyance of insects, and more especially to that almost indestructible pest of stoves, the red spider; the best mode of destroying which is that of steaming the plants; that is, keeping them well watered, and in a hot and humid air.

Some of our friends conceive this plant to differ from that which is figured in the Botanical Magazine, No. 490. It is true, I found the seed-bud quite silky; and if the full grown pod (which I never saw*) should likewise be so, it would certainly be worthy distinguishing from that plant, which is said to have smooth, and therefore, in all probability, naked pods.

* Neither have I yet seen the pod of the Crotolaria figured in the last number, which, if it should prove cylindrical and not turgid, would refer that plant to the genus Lebeckia, with which in habit it very well accords.

Crotalaria Juncea.

PLATE CCCCXXIII.

GERANIUM LUTEUM.

Dwarf Yellow-flowered Geranium.

CLASS XVI. ORDER IV.

MONADELPHIA DECANDRIA. Threads united. Ten Chives.

ESSENTIAL GENERIC CHARACTER.

MONOGYNA. Stigmata quinque. Fructus pentacoccus.	ONE POINTAL. Five summits. Fruit beaked, five berries.

SPECIFIC CHARACTER.

GERANIUM, tuberosum, pinnis foliorum oppositis subovatis acutis inciso-bifidis seu trifidis integrisve, scapis simplicibus, petalis clavato-linearibus.	GERANIUM, tuberous, with the pinnæ of the leaves somewhat ovate acute gash-bifid or trifid or entire, simple flower-stalks, and clavatedly-linear petals.

REFERENCE TO THE PLATE.

1. The empalement cut open.
2. The chives and pointal.
3. The chives spread open.
4. The seed-bud and pointal.

WE have here the pleasure of adding another tuberous-rooted Geranium, not enumerated by Willdenow, to the great variety of that description already given in this work. As a species it appears sufficiently distinct from any of them, although pretty closely allied to that which is delineated in our last number; and also to G. fissifolium of our 378th plate. Its flowers are yellow marked with red, as is frequently the case amongst the tuberous species of this extensive tribe of plants, but of very rare occurrence in the other departments of it.

From the Clapham collection, incomparably rich in this description of plants, our figure was derived, so long since as the summer of the year 1803.

Like its congeners, it is a native of the Cape; requires the treatment of a green-house plant; and is increased, but very slowly, by carefully dividing the tubers of its roots, when quiescent; taking especial care that no moisture comes in contact with the wounded parts, until nature has healed them by drying, and formed what the gardeners call a callus; that is, a dry and hardened external skin.

Geranium luteum

PLATE CCCCXXIV.

POLYGALA MICRANTHA.

Small-flowered Milkwort.

CLASS XVII. ORDER III.

DIADELPHIA OCTANDRIA. Two Brotherhoods. Eight Chives.

ESSENTIAL GENERIC CHARACTER.

Calyx 5-phyllus, foliolis duobus alæformibus, coloratis. Legumen obcordatum, biloculare.	Empalement 5-leaved, with two of the leaves like wings, coloured. Pod inversely heart-shaped, two-celled.

SPECIFIC CHARACTER, &c.

Polygala, virgata, floribus imberbibus axillari-sessilibus solitariis subdistantibus folio brevioribus, foliis alternis subremotis internodio longioribus subulatisque.	Milkwort, twiggy, with beardless axillary-sessile solitary rather distant flowers which are shorter than the leaf, and alternate remotish awl-shaped leaves, longer than the space they are distant from each other.

Polygala (micrantha) floribus imberbibus axillari-sessilibus, foliis linearibus mucronatis. *Thunb. Prod.* 121.—*Willd. Sp. Pl.* 3. 892.

REFERENCE TO THE PLATE.

1. The empalement.
2. The same magnified.
3. The keel magnified.
4. One of the wings.
5. The same magnified.
6. The chives.
7. The same magnified.
8. The pointal.
9. The same magnified.

There is an elegance and a grace in the habit and appearance of this Polygala, which in a great measure compensates for its trifling flowers. It forms a small, and but little branched, twiggy shrub; is a native of the Cape of Good Hope; and belongs to the Heisteria division of the genus. We do not know that it has ever been figured before; but, notwithstanding the short character given by Thunberg, have little doubt of its being the plant he intended for P. micrantha. The honour of introducing it, and also some other shrubby Polygalæ, into this country, is due to G. Hibbert, Esq., from whose choice collection at Clapham our figure was taken.

Polygala micrantha continues flowering the greatest part of the year, winter as well as summer, is a very hardy green-house plant, and is propagated by cuttings in the usual way.

If we were to consider the flowers as resupinate, and perhaps they really are so, what we have called the keel would become the standard, and the small appendage which is a part of it below would answer as its keel. The expanded flowers of this species, and also those of P. stipulacea of our 363d plate, viewed in front, very remarkably resemble in outline, and almost in size, the insects which I have named Tineæ Bombyciformes; but the wings of the flower, which answer to the pectinated horns of the insects, appear rather too large. P. alopecuroides of our 371st plate possesses this extraordinary resemblance still more completely; inasmuch as the ciliæ of its keel correspond exactly to the fringes of the insects' wings! A more perfect similitude between objects in reality so remote and so different, I have very rarely, or never, beheld.

Pedicularis gigantea

PLATE CCCCXXV.

MANGIFERA INDICA.

Indian Mango Tree.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Flores pentapetali, inferi. Drupa reniformis. Corolla petalis lanceolatis. Nux lanuginosa.	Flowers 5-petalled, beneath the fruit. Drupe kidney-shaped. Blossom with lanceolate petals. Nut woolly.

SPECIFIC CHARACTER, &c.

Mangifera, foliis oblongo-lanceolatis, floribus submonandris, drupa maxima reniformi. *Willd. Sp. Pl.* 1. 1150.	Mango, with oblong-lanceolate leaves, somewhat monandrous flowers, and a large kidney-shaped drupe.

REFERENCE TO THE PLATE.

1. A front view of a detached flower magnified.
2. A back view of the same.

The Mango tree very seldom produces its flowers, and, we believe, never perfects its fruit, or, as Miller calls it, its plum, in Europe. In India this tree acquires considerable size, with a rough bark, and luxuriant foliage, and its fruit is held in great esteem. For the sake of its fine leaves alone it is worthy cultivation in our hot-houses, where, according to Miller, it prospers better out of, than in the tan; yet I believe most of the horticulturists of the present day prefer the bark-bed for their Mangoes, planting them in rich earth and large pots. They are propagated by layers or cuttings, seldom by seeds, because these will not keep long after they are mature, and therefore perish before they reach this country and can be sown in it. The flowers are extremely trifling, but they are curious in their conformation, and remarkable in constantly having four out of their five chives abortive, imperfect, and destitute of anthers; wherefore the plant is monandrous. Our figure was taken at Whitley and Brames's in the month of December last.

2

Mangifera indica.

PLATE CCCCXXVI.

LIMODORUM TANKERVILLIÆ.

Chinese Limodorum.

CLASS XX. ORDER I.

GYNANDRIA DIANDRIA. Chives on the Pointal. Two Chives.

ESSENTIAL GENERIC CHARACTER.

NECTARIUM monophyllum, concavum, pedicellatum, intra petalum infimum.	NECTARY one-leafed, concave, on a pedicel, upon the lower petal.

SPECIFIC CHARACTER, &c.

LIMODORUM, floribus racemosis imberbibus. *Ait. Hort. Kew.* 3. 302.—*Gmel. Syst. Nat. tom.* 2. *p.* 60.	LIMODORUM, with beardless racemose flowers.

REFERENCE TO THE PLATE.

1. A miniature figure of the plant.
2. The spathe.
3. The honey-cup.
4. The parts of fructification as they stand in the plant. The upper part of the same with its lid elevated, and one chive detached and magnified.

No coloured representation of this magnificent plant within our knowledge has yet been published, either in this country or on the continent; but a large folio black print of it was given in Aiton's Hortus Kewensis, along with the above specific character, and with the circumstance of its having been introduced into the British gardens by the late Dr. Fothergill, in the year 1778, from China; of which country it is a native. In England it requires the artificial heat of the tan-bed to make it flower, which it does annually, with good management, from the month of November to that of April. It requires rich earth, and in dry weather frequent waterings; when in bloom makes a very stately appearance, and is propagated pretty readily by parting the tubers of the roots. Our drawing was made from fine plants in the Hibbertian collection at Clapham last month.

Pl 426.

PLATE CCCCXXVII.

GOMPHOLOBIUM MACULATUM.

Maculated Air-pod.

CLASS X. ORDER I.

DECANDRIA MONOGYNIA. Ten Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

CALYX campanulatus, simplex, alte 5-fidus. Corolla papilionacea. Stigma simplex, acutum. Legumen inflatum, sphericum, uniloculare, polyspermum.

EMPALEMENT bell-shaped, simple, deeply five-cleft. Blossom butterfly-shaped. Summit simple, acute. Pod inflated, spherical, one-celled, many-seeded.

SPECIFIC CHARACTER.

GOMPHOLOBIUM, foliis ternatis linearibus nudis, senioribus declinatis, pedunculis basin versus bibracteatis, ramulis teretibus nudis.

GOMPHOLOBIUM, with leaves in threes and naked, the older ones bent downwards, peduncles with 2 floral leaves near the base, and naked round branches.

REFERENCE TO THE PLATE.

1. A leaf.
2. The empalement, peduncle, and floral leaves.
3. A front view of the standard.
4. A back view of the same.
5. One of the wings.
6. The keel.
7. The chives and pointal.
8. The seed-bud and pointal.

THE plant here represented is quite a new species, and is said to be a native of New Holland: it is a stiff little shrub, and prospers in the green-house; and its yellow flowers, deeply blotched with brown on the standard, make a good appearance.

In its habit, and in the generic characters, it comes nearer to Gompholobium of Dr. Smith in Exotic Botany, tab. 5, than to any other genus within our knowledge; yet the dissections here given, will be found to swerve from the characters there advanced, in several perhaps not unimportant particulars. The stamina appear more united. The stigma appears slightly capitated, instead of acute; and the infant pod somewhat too long. The bracteæ also differ in number as well as structure.

Our drawing was made from living plants in the Hibbertian collection in the year 1803, but the above description from the drawing only.

Campylotropium maculatum

PLATE CCCCXXVIII.

ELYCHRISUM STÆHELINA.

Stœhelina-like Eternal-flower.

CLASS XIX. ORDER II.

SYNGENESIA POLYGAMIA SUPERFLUA. Tips united. Superfluous Polygamy.

ESSENTIAL GENERIC CHARACTER.

Receptaculum nudum. Pappus pilosus, vel plumosus. Calyx imbricatus, radiatus, radio colorato.	Receptacle naked. Down hairy, or feathery. Empalement imbricated, rayed, with the ray coloured.

SPECIFIC CHARACTER, &c.

Elychrisum, fruticosum, erectum, foliis oblongo-lanceolatis basi attenuatis sericeis, pedunculis nudis unifloris terminalibus. *Willd. Sp. Pl.* 3. 1910.	Elychrisum, shrubby, erect, with leaves oblong-lanced attenuated at the base and silky, and terminal naked one-flowered peduncles.

Xeranthemum (Stœhelina) pedunculis terminalibus exertis nudis unifloris, foliis lanceolatis tomentosis. *Syst. Veg.* 624.

Xeranthemum foliis lanceolato-oblongis carinatis lanatis, caule erecto. *Thunb. Prod.* 153.

Obs. Caulis lignosus, teper, paniculato-ramosus, ut tota herba albo-tomentosus. Pedunculi longi terminales. *Willd.* l. c.

REFERENCE TO THE PLATE.

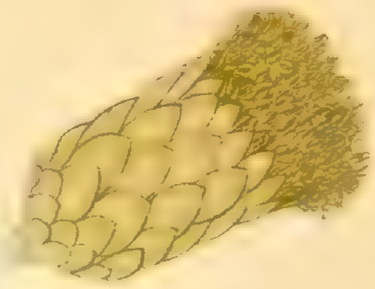
1. A flower cut open.
2. An hermaphrodite floret with its down.
3. The same without the down.
4. The same spread open.
5. The seed-bud and pointal, with the summit detached and magnified.

In the last volume of Willdenow's Species Plantarum, containing the great class Syngenesia, are found many valuable botanical alterations and amendments, respecting the division and distribution of the genera and species; and amongst others, we find the Linnæan genus Xeranthemum, and even its species the annuum, with its supposed variety the inapertum, divided and arranged exactly after the manner proposed in our account of X. bracteatum (Plate 375), now Elychrisum bracteatum: those few species only being now called Xeranthema which have a squamous receptacle: viz. the annuum, and inapertum, of European origin; and the orientale, a native of Armenia.

The plant here depicted was drawn from a living specimen in the Clapham collection, last December, where at first it only threw up one flower-stalk; but it has since become stronger, and shows a peduncle from the end of almost every branch.

Although this species comes nearer Elychrisum in its generic characters than to any other genus, Gnaphalium not excepted, yet still we cannot help remarking, how much it recedes from the external appearance of most of its congeners, in being quite destitute of radiating scales.

It is a green-house plant, a native of the Cape, and is propagated by cuttings; but is not at present in any collection we are acquainted with, except Mr. Hibbert's.



Elychrisum Staechelina

PLATE CCCCXXIX.

PROTEA INCURVA.

Incurved-leaved Protea.

CLASS IV. ORDER I.

TETRANDRIA MONOGYNIA. Four Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

Corolla quadrifida, sive quadripetala. Antheræ lineares, insertæ petalis infra apicem. Calyx proprius, nullus. Nux unisperma, supera.	Blossom four-cleft, or four-petaled. Tips linear, inserted on the petals below the apex. Empalement proper, none. Nut one-seeded, above.

SPECIFIC CHARACTER, &c.

Protea, foliis filiformibus incurvis glabris, capitulis racemoso-spicatis tomentosis. *Thunb. Prod.* 26.—*Diss. no.* 22. *tab.* 3. *fig.* 2.—*Willd. Sp. Pl.* 1. 516.	Protea, with thread-shaped incurved smooth leaves, and heads of flowers racemose-spiked and woolly.

REFERENCE TO THE PLATE.

1. A flower.
2. A petal magnified.
3. The seed-bud and pointal, with the summit detached and magnified.

The Protea incurva is a native of the Cape of Good Hope, which is also the native country of by far the greater part of this extensive genus.

In this country it is considered and treated as a hardy green-house plant; and requires, like most of its congeners, a fresh loamy soil, and an airy situation in the winter. A very abundant supply of fresh air, indeed, is of essential consequence in the cultivation of most of the Cape plants; they benefit by it in the day time in most sorts of weather, even if rainy, provided the plants are not wetted by the rain, and the temperature of the atmosphere is not lower than forty degrees of Fahrenheit's thermometer.

In many collections, we are of opinion, too little air is usually admitted in the green-house; especially in winter, and early spring: and we are also of opinion, that where we have seen the most given, the plants are the most healthy and robust. The fine collection at Mr. Hibbert's is a powerful argument in favour of this theory.—In few places is air so freely given; in none are plants in finer health: therefore much air is essentially necessary; for plants, like animals, are now known to absorb from the atmosphere, through a process analogous to respiration, its oxygenous particles; thence deriving strength and vigour, and without which no animal or vegetable can at all maintain either health or life.

Our figure was made from the Clapham Collection last June. The plant is shrubby, erect, and is propagated by cuttings in the usual way.

1
2
3

PLATE CCCCXXX.

RICINUS ARMATUS.

Prickly-capsuled Ricinus.

CLASS XXI. ORDER VIII.

MONOECIA MONADELPHIA. One House. One Brotherhood.

ESSENTIAL GENERIC CHARACTER.

MAS. Calyx 5-partitus. Corolla 0. Stamina numerosa.

FEMINA. Calyx 3-partitus. Corolla 0. Pistilli 3, bifidi. Capsula 3-locularis. Semen 1.

MALE. Empalement 5-parted. Blossom none Chives numerous.

FEMALE. Empalement 3-parted. Blossom none. Pointals 3, 2-cleft. Capsule 3-celled. Seed one.

SPECIFIC CHARACTER.

RICINUS, foliis peltatis alte palmato-novemfidis serratis, petiolis glandulosis, capsulis undique spinis herbaceis.

RICINUS, with leaves peltated deeply palmate-9-cleft and serrated, with glandulose petioles, and capsules every where furnished with herbaceous spines.

REFERENCE TO THE PLATE.

1. A male flower.
2. The male empalement.
3. The pointals.
4. A capsule.
5. A seed.

THE species of Ricinus here depicted, was raised in Lady Holland's garden at Kensington last summer, from seeds sent by her ladyship from Malta, where the plant has been cultivated for medicinal purposes about four years; and where it is considered as a new sort. And such indeed it appears to us: for as a species, although it comes extremely near to R. communis, R. inermis, and perhaps R. medicus of Forskall, it appears to be sufficiently distinct; differing from the former and latter, in its deeper cloven, and more numerously lobed, and glandular petioled leaves; and from R. inermis, in having its capsules thickly beset with considerable, but herbaceous spines; whence our specific name of armatus, in contradistinction also to R. inermis, which has smooth capsules. The plant from which our drawing was taken was eight feet high and very much branched; and its ample yet elegant foliage, and red stalks and veins, communicated that kind of appearance to it which is often attributed to Asiatic plants—stately, and magnificent. Its root is biennial; it requires the protection of the greenhouse, and can be increased very readily by seeds, which should be raised on a hot-bed in spring, and afterwards transplanted into very large pots. There were two glands at the top of the petioles.

The valuable drug called castor oil is extracted from the seeds of this and other species of Ricinus.

Ricinus armatus.

PLATE CCCCXXXI.

CÆSULIA AXILLARIS.

Axillary-flowered Cæsulia.

CLASS XIX. ORDER I.

SYNGENESIA POLYGAMIA ÆQUALIS. Tips united. Æqual Polygamy.

ESSENTIAL GENERIC CHARACTER.

RECEPTACULUM paleaceum, paleis semina involventibus. Pappus nullus. Calyx triphyllus.	RECEPTACLE chaffy, with the chaff enveloping the seeds. Down none. Empalement three-leaved.

SPECIFIC CHARACTER, &c.

CÆSULIA, foliis lanceolatis basi attenuatis serratis alternis. *Willd. Sp. Pl.* 3. 1796.	CÆSULIA, with alternate lanceolate serrated leaves attenuated at the base.

REFERENCE TO THE PLATE.

1. A floret with its seed enveloped by the chaff.
2. The same divested of its seed and chaff.
3. The same spread open and magnified.
4. The seed-bud, pointal, and chaff.
5. and 6. The same in different states.

NOVELTY, oddity, and a very unusual appearance in every part, for a syngenesious plant, must in the present subject compensate for its trifling flowers.

Few of our cultivating friends, except those who are the most botanical, will be inclined to add this Cæsulia to their collections; although a very rare, and, in many respects, an interesting species.

It was first described and figured by Dr. Roxburgh, as a new genus, and by the name it here bears, in his sumptuous work on the plants of the coast of Coromandel, of which country it is a native; and it has since been taken up by Professor Willdenow, in his edition of Species Plantarum, and has had a new species (the *radicans*), from Guinea, added to it by that botanist.

The axillary-flowered Cæsulia is quite new in the gardens, and is said to have a perennial root, by the parting of which we suppose it may be increased; and must be considered as a hot-house plant in this country.

Our figure was taken from a living specimen, obligingly communicated to us last summer by the Marquis of Blandford, from White Knights, Berks; who, we believe, first raised it in this country, from East Indian seeds.

Pl. 431.

Cæsulia axillaris

PLATE CCCCXXXII.

STRELITZIA REGINÆ.

The Queen's Strelitzia.

CLASS V. ORDER I.

PENTANDRIA MONOGYNIA. Five Chives. One Pointal.

ESSENTIAL GENERIC CHARACTER.

SPATHA universalis, partialesque. Calyx 0. Corolla 3-petala. Nectarium 3-phyllum, genitalia involvens. Capsula 3-locularis; loculis polyspermis.	SPATHE a common one, and partial spathes. Empalement none. Blossom three-petalled. Nectary three-leaved, involving the organs of fructification. Capsule three-celled; with many seeds.

SPECIFIC CHARACTER, &c.

STRELITZIA, foliis ellipticis basi undulatis parallelo-costatis.	STRELITZIA, with leaves elliptic undulated at the base, and ribbed in a parallel manner.

STRELITZIA Reginæ. *Willd. Sp. Pl.* 1. 1190.—*Curt. Bot. Mag. tab.* 119.—*Ait. Hort. Kew.* 1. 285. *tab.* 2.

REFERENCE TO THE PLATE.

1. A miniature figure of the plant.
2. The two-petal-like nectary.
3. The upper short petal of the nectary.
4. The seed-bud, chives and pointal.

AT the request of several of our subscribers, who compliment us in saying this work contains nearly all the more showy plants now in cultivation; and who moreover are desirous that it should not long want any of them: we here beg leave to present them with that queen of hot-house plants, the superb Strelitzia: although strictly against our rules and plan; a coloured quarto print of it having already been given in the Botanical Magazine.

Of this majestic genus, first established in the Hortus Kewensis, there are now living in the British gardens, not fewer than four species, and several varieties; all natives, we believe, of the Cape of Good Hope, and all hot-house plants: viz. 1st, Strelitzia alba (Hortulanorum), which, towering far above the rest, and quite erect, attains the kingly height of twenty feet or upwards: it ought to have been called S. Regis;—2nd, S. Reginæ, here delineated, of which there are three or four varieties, differing only in the undulation of the leaves, and in their length, which (including the petiole) is usually from three to five feet;—3d, A nondescript narrow-leaved species, with very long petioles; this should be called S. Principis;—and 4th, another nondescript, but smaller sort, whose leaves are mere petioles, and scarce ever expand in the slightest manner into laminæ: this should be called S. juncea: it is very rare, and we believe at present only in the royal collection at Kew. All the Strelitziæ are propagated, though slowly, by carefully dividing their perennial roots, which are usually planted either in very large pots, or small beds annexed to the tan-bed in hot-houses. Our figure was made from a plant at Mesrs. Colvill's, in the King's Road, last autumn, but the plant flowers freely at various seasons.

Strelitzia Reginæ

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	365	Scilla siberica	Siberian Squill	Hard. Bulb	February
	366	Geranium barbatum. *Var. undulatum.*	Bearded-leaved Geranium. *Var. waved-petaled.*	G. H. Herb	Septem.
	367	Anagallis grandiflora	Great-flowered Pimpernel	G. H. Ann.	April
	368	Melanthium Massoniæfolium	Massonia-leaved Melanthium	G. H. Bulb	March
	369	Eucomis purpureocaulis	Purple-stalked Eucomis	G. H. Bulb	March
	370	Polygala teretifolia	Cylindric-leaved Milkwort	G. H. Shrub	April
	371	Polygala alopecuroides	Fox-tail Milkwort	G. H. Shrub	April
	372	Mimosa purpurea	Soldier-bush Mimosa	H. H. Shrub	April
	373	Pæonia suffruticosa	Shrubby Pæony	G. H. Shrub	April
	374	Xeranthemum proliferum	Proliferous Eternal-flower	G. H. Shrub	May
	375	Xeranthemum bracteatum	Waved-leaved Eternal-flower	Hard. Ann.	Septem.
	376	Neottia minor	The Lesser Neottia	H. H. Herb	March
	377	Allium Chamæ-Moly	The Dwarf Moly	G. H. Bulb	February
	378	Geranium fissifolium	Cloven-leaved Geranium	G. H. Herb	Septem.
	379	Rhododendron ponticum. *Var. deciduum.*	Deciduous purple Rhododendron	Hard. Shrub	May
	380	Achyranthes porrigens	Divaricating Achyranthes	H. H. Shrub	May
	381	Sarracenia flava	Yellow side-saddle Flower	G. H. Herb	June
	382	Liparia villosa	Concave-leaved Liparia	G. H. Shrub	May
	383	Pittosporum undulatum	Waved-leaved Pittosporum	G. H. Shrub	May
	384	Xeranthemum variegatum	Variegated Eternal-flower	G. H. Shrub	May
	385	Campanula laciniata	Ragwort-leaved Bell-flower	Hard. Herb	July
	386	Anthericum pugioniforme	Dagger-leaved Anthericum	Hard. Bulb	Septem.
	387	Xeranthemum rigidum	Rigid-leaved Eternal-flower	G. H. Shrub	May
	388	Mesembryanthemum inclaudens	Unclosing-flowered Fig-marygold	G. H. Shrub	July
	389	Dombeya Erythroxylon	Saint Helena Red-wood	H. H. Shrub	June
	390	Amaryllis spectabilis	Waved-leaved Amaryllis	H. H. Bulb	July
	391	Nymphæa Lotus	The Ægyptian Lotus	H. H. Herb	July
	392	Ixia columnaris. *Var. angustifolia.*	Narrow-leaved Columnar-chived Ixia	G. H. Bulb	June
	393	Fumaria formosa	Beautiful Fumitory	Hard. Herb	June
	394	Mimosa Linifolia	Flax-leaved Mimosa	G. H. Shrub	May
	395	Anthericum paniculatum	Panicled Anthericum	G. H. Herb	July
	396	Campanula versicolor	Various-coloured Bell-flower	Hard. Herb	July
	397	Stewartia marilandica	Maryland Stewartia	Hard. Shrub	August
	398	Wachendorfia villosa	Villous Wachendorfia	G. H. Herb	June
	399	Commelina tuberosa	Tuberous-rooted Commelina	H. H. Herb	Septem.
	400	Eucalyptus resinifera	Resinous Eucalyptus	G. H. Shrub	July
	401	Serratula spicata	Spiked-flowered Saw-wort	Hard. Herb	July
	402	Clematis florida	Large-flowered Virgin's Bower	Hard. Shrub	July
	403	Ipomea grandiflora	Great-flowered Ipomea	H. H. Ann.	Septem.
	404	Morea miniata	Red-lead-coloured Morea	G. H. Bulb	April
	405	Primula dentiflora	Toothed-flowered Primrose	Hard. Herb	Septem.
	406	Aponogeton monostachyon	Simple-spiked Aponogeton	H. H. Herb	July
	407	Calendula dentata	Toothed-leaved Marygold	G. H. Shrub	July
	408	Dahlia pinnata	Pinnated-leaved Dahlia	G. H. Herb	Septem.
	409	Protea Scolymus	Smooth-leaved Protea	G. H. Shrub	May
	410	Cynanchum undatum	Waved Cynanchum	H. H. Shrub	July
	411	Psoralea spicata	Spiked-flowered Psoralea	G. H. Shrub	July
	412	Calendula viscosa	Viscous Marygold	G. H. Shrub	October
	413	Geranium hymenodes	Ternate-leaved Geranium	G. H. Herb	May
	414	Crassula obliqua	Oblique-leaved Crassula	H. H. Shrub	October
	415	Cantua Coronopifolia	Coronopus-leaved Cantua	H. H. Herb	Novem.
	416	Salvia Chamædrifolia	Germander-leaved Sage	G. H. Shrub	July
	417	Crotolaria pulchella	Ternate large-flowered Crotolaria	G. H. Shrub	July
	418	Gentiana Catesbæi	Catesby's Gentian	Hard. Herb	October
	419	Genista lusitanica	Portugal Genista	Hard. Shrub	March
	420	Geranium floribundum	Tuberous many-flowered Geranium	G. H. Herb	July
	421	Renealmia calcarata	Upright-flowering Renealmia	H. H. Herb	Septem.
	422	Crotolaria juncea	Rushy-stalked Crotolaria	H. H. Ann.	August
	423	Geranium luteum	Dwarf yellow-flowered Geranium	G. H. Herb	Septem.
	424	Polygala micrantha	Small-flowered Milkwort	G. H. Shrub	April
	425	Mangifera indica	Indian Mango-tree	H. H. Shrub	Decem.
	426	Limodorum Tankervilliæ	Chinese Limodorum	H. H. Herb	Decem.
	427	Gompholobium maculatum	Maculated Air Pod	G. H. Shrub	July
	428	Elychrisum Stæhelina	Stæhelina-like Eternal-flower	G. H. Shrub	Decem.
	429	Cæsulea axillaris	Axillary-flowered Cæsulea	H. H. Herb	August
	430	Ricinus armatus	Prickly-capsuled Ricinus	G. H. Bien.	October
	431	Protea incurva	Incurved-leaved Protea	G. H. Shrub	June
	432	Strelitzia Reginæ	The Queen's Strelitzia	H. H. Herb	August

ERRATA ET CORRIGENDA IN VOL. VI.

Plate 361, line 20, for brevioribus, read *breviora.*
——— 21, for antheris, read *antheras.*
362, — 7, after longissimo add *partim*, and after long add *and partly.*
——— 11, after cochleariformibus, add *circumscissis.*
——— 16, for antheris, read *antheras.*
——— after line 21, add 4. *The Seed-bud and Pointal.*
365, — 21, for antheris, read *antheras.*
375, — 19, for the Pointal, &c. read *one of the Scales of the Empalement.*
——— 10, for primate, read *pinnate.*
378, — 3, from the bottom, for Erodium, read *Pelangonium.*
383, After the Specific Character, add *P. undulatum, Vent. Pl. nouv.* 76.
389, line 25, for retuse, read *undulatim retusa.*
390, — 20, after tubulosi, add *ante anthesin inflati.*
395, — 18, after is, read *a new species.*
396, — 24, for and, read *it.*
397, — 13, strike out the letter *l.*
399, — 4, from the bottom, for double, read *but half.*
404, — 9, for Monadelphia, read *Monadelpha.*
——— 22, for east, read *least.*
405, — 22, for affords, read *afford.*
410, — 11, after waved, add *and.*
——— 27, for known, read *unknown.*
415, — 22, for 4 read 3.
417, — 10, strike out the *two hyphens* and the *comma* between them.
418, — 7, from bottom, for purple read *blue.*
420, — 19, for Erodium, read *Pelangonium.*
424, — 27, for compensates, read *compensate.*
426, — 16, after plant, add *5.*